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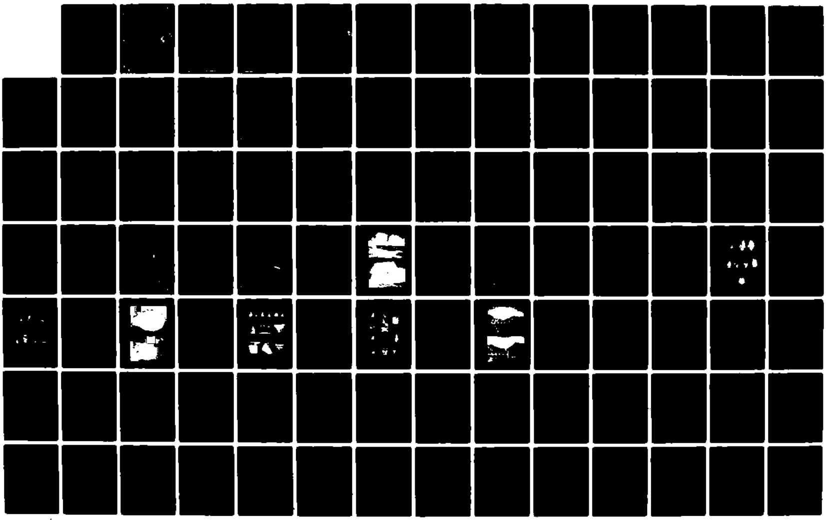

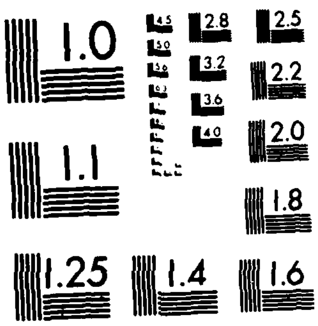

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Final Interim Report

Archaeological Investigations in the Upper Tombigbee Valley, Mississippi: Phase I

Judith A. Bense, Editor

With the Assistance of

Jerry R. Galm and David H. Dye

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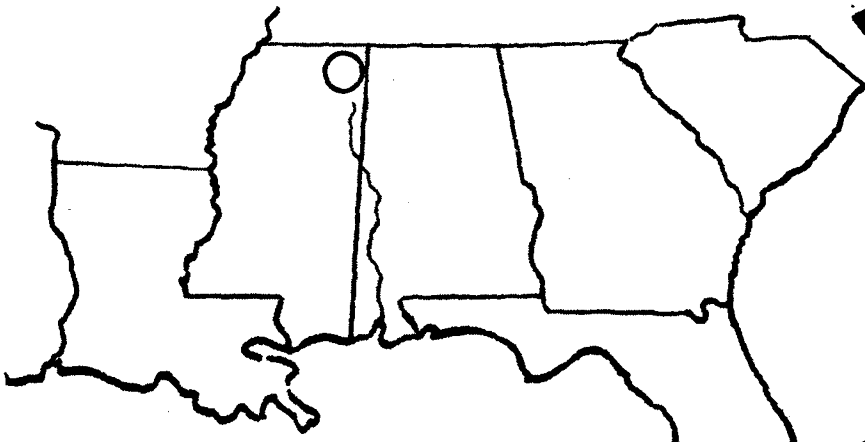
and Joseph M. Studer

Volume 3.



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Block 20 - Abstract

This document is a report of archaeological investigations at eleven sites in the Canal and River Section of the Tennessee-Tombigbee Waterway. These investigations include the excavation of four sites and the testing of seven others. This report is a description of this project and includes the research design, a summary of the archaeological background, and a full description of the data recovery methods and techniques. For each site investigated in the project, a complete report of the specific procedures and a description of the results are provided. A summary of the total results is also contained in the final chapter. Attached to the report are a series of special studies, manuals for field, laboratory and data methods, and the original detailed research design. Also included is a complete data set on microfiche which presents the location, classification and measurement of all specimens recovered in the project.

The results of this 15 month field effort contributed much to our understanding of the Archaic and Gulf Formational State, specifically, the Early Archaic (Kirk), initial Late Archaic (Benton), and late Gulf Formational (Alexander). Isolated components of these cultures have been recovered and provide primary data for the reconstruction of chronology and lifeways of these portions of the prehistoric occupation of the Upper Tombigbee Valley. With additional, more intensive study of the recovered material, it will be possible to address the cultural process issue of adaptation to the post-glacial climate maximum, the Altithermal. Obvious differences in site use and area settlement pattern, subsistence strategy and scheduling, and technology were employed between ca. 6500 and 5500 B.P.

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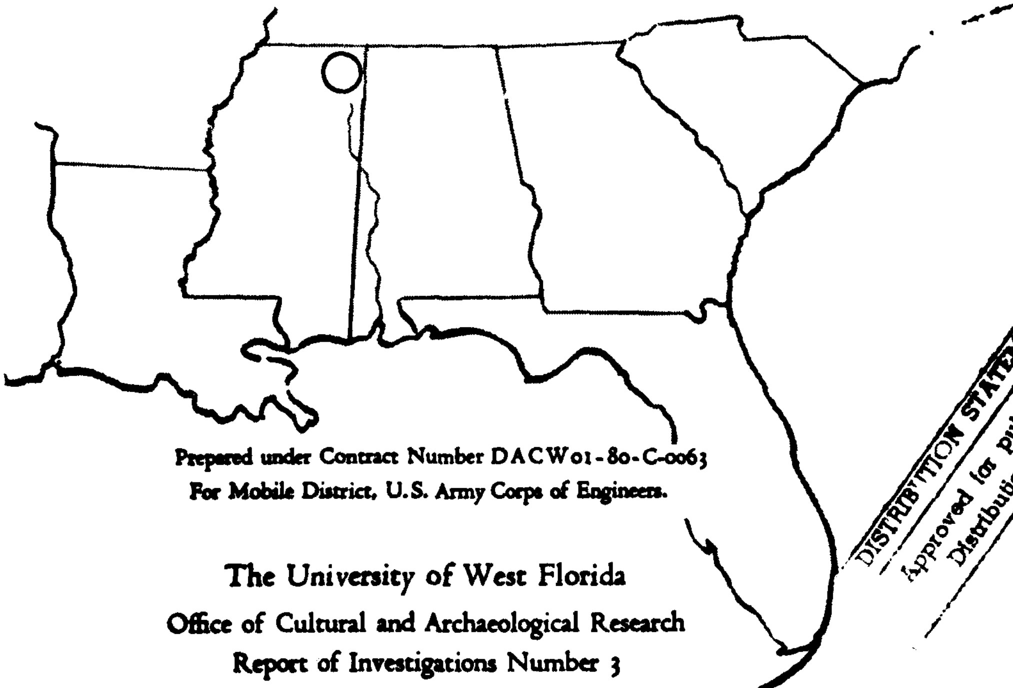

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TEST EXCAVATIONS AT 22IT606

INTRODUCTION

22IT606 (Figure 9.1) was recorded initially during a cultural resources survey in the Tennessee-Tombigbee Waterway (Atkinson 1978:101-102). Surface collections made at that time indicated aboriginal occupations during the Archaic and Woodland periods. Intact midden or subplowzone features were not identified (Atkinson 1978:102).

Between September 29, 1980, and October 17, 1980, approximately 80 person/days were spent by University of West Florida field personnel testing the site and creating topographic and site maps (Figure 9.2). This site occupies an upland physiographic position. Documentation of intact cultural materials at this poorly understood site type within the Upper Tombigbee Valley could provide valuable insight into aboriginal activity sets, resource utilization, and intrasite and intersite patterning.

SITE DESCRIPTION

22IT606, located approximately 13 km north of Fulton, Mississippi, is an upland site situated atop an isolated Pleistocene terrace remnant (Figure 9.1 and Figure 9.3), which creates substantial relief in otherwise low-lying wetlands. This remnant lies immediately north of the juncture where the Mud Creek drainage enters the Upper Tombigbee floodplain. Mud Creek flows south-westward and is directly adjacent to the site, an association which, during flooding episodes, has caused the abrupt, steep bank along its southern flank (Figures 9.2 and 9.4). Following completion of the Tennessee-Tombigbee Waterway, this site, which lies at the southern terminus of the Beaver Lake recreation area, will be surrounded by water from the Lock D reservoir.

The site is located in Itawamba County, Mississippi, within the SW/SW 1/4 of Section 18, Township 8S, Range 9E at 34°22'54" N Latitude, 88°23'56" W Longitude. The Universal Transverse Mercator coordinates are Zone 16, Easting 371340, Northing 3805040 (Kirkville, Mississippi Quadrangle, 1979: USGS 7.5 minute series). The site is approximately 60 m by 140 m, based upon the distribution of surface materials. Today, an abandoned historic dwelling (recently burnt) and one outbuilding can be found on its eastern edge. According to local informants, an orchard grew on the extreme southern edge of the site and a barn once stood there. The central part of the site, directly west of the abandoned house, had been plowed for gardening. To the northwest, the site is covered with overgrown grass and littered with abandoned farm machinery and wood and concrete debris.

Along the northeastern and eastern boundary, gravel, introduced for road surfacing, is the predominant ground cover.

Historic settlement and farming and recent waterway construction activities have largely destroyed or disturbed the natural floral and faunal communities at the site. Under pristine conditions, however, the site would have supported an oak-hickory-pine forest with attendant upland plant and animal populations.

EXCAVATION STRATEGIES

Documenting the kinds and integrity of archaeological materials was the primary research objective during test excavations. Secondarily, pedological data pertinent to site formation factors were gathered. Testing activities were designed to examine the site's components, identify the types of intact cultural deposits, and document site pedogensis. The field procedures included the following:

1. Accessible areas of the site were plowed and disced to facilitate surface collecting.

2. Two 2 m by 2 m units were hand excavated to "sterile" to define and delimit cultural stratigraphy (if any).

3. Vertical profiles were "cut" in steep-slope situations along the south and west edges of the site for visual inspection by David Pettry, the project's pedological consultant.

4. Two and one-half meter wide N/S and E/W trenches were excavated by heavy machinery to assess cultural features (if any).

5. Local informants were contacted in order to gather information about the site's recent history.

Although surface finds at 22IT606 are scattered widely, the status of the present-day horizontal distribution must be qualified. Several forces have distorted aboriginal site dimensions. The southern periphery has been truncated, apparently by Mud Creek. Erosion along the eastern and especially the western slopes has deflated these areas; the lateral movement of artifacts precipitated by this action has artificially enlarged the site's boundaries. Historic agricultural activities, in addition to randomizing surface and near-surface material, has had the same effect. Lastly, heavy machinery traffic has been responsible for severe disturbance and movement of artifact-bearing deposits within at least the northeastern one-third of the site (a waterway construction company's headquarters, Servidone, is nearby to the northeast and the east side of the site has been used as an area for bulldozer repair).

Two types of surface collections were made. Within a grid measuring 60 m by 15 m the estimated remaining site area) and consisting of 90 quadrants 4 m on a side, a 20% sample (systematic, unaligned) was collected subsequent to fresh ground exposure by plowing (Figure 9.2). Total artifact retrieval took place within each quadrat (Figure 9.5 for collected quadrats). In order to gather from uncollected quadrats and unplowed areas of the site, a second, "grab bag", collection was made; the entire site was inspected. General artifact classes from both surface collections are displayed in Appendix I.

The proposal for testing 22IT606 called for the excavation of two 2 m by 2 m test pits to investigate the depth and integrity of cultural deposits. Two were hand excavated using 10 cm levels for vertical control; all fill was processed through 0.25 inch mesh screen. Test Pit 1 (106S/94W) was positioned closed to the southern edge of the site because this was the highest area of the site and, given the eroded and disturbed nature of a considerable portion of the site, thought the most promising to contain intact material. Test Pit 2 (62S/98W), 44 m to the north, penetrated the southwest corner of one of the surface collection 4 m by 4 m quadrants within the plowed area of the garden. Artifact types and frequencies from both units are summarized (Tables 9.1 and 9.2) and discussed below. Selected specimens are illustrated in Figures 9.9 and 9.10. Features were not encountered during the excavation of either test pit.

The final testing stage entailed preliminary wide-scale stripping to determine the types and density of subsurface features. Two 2.5 m wide trenches, one roughly E/W and the other roughly N/S (total trench length = 116 m), were excavated to the C soil horizon by a small angle blade bull dozer. The Ap horizon, or plowzone, was removed without inspection because of its disturbed nature. Approximately 290 m^2 or 3.5% of the total site area were investigated. Bagging stations were placed at 4 m intervals for artifact retrieval during stripping; recovered artifacts were combined with general surface collections.

Directly beneath the plowzone, 14 features were discovered. Feature contents are presented in Tables 9.3 and 9.4 and are discussed below. All aboriginal features were photographed and excavated; historic features were photographed and their location and description was recorded. Excavated feature fill was processed by water screening (0.25 inch and 0.06 inch mesh) and flotation.

STRATIGRAPHY

Test pit excavation generated vertical profiles for stratigraphic observation in two areas of the site. Five additional profiles were "cut" in steep physiographic exposures; three on the south face of the site and two along its western boundary (Figure 9.2). Profiling operations, allied with consultation by David Pettry and Jerry R. Galm, allow the formulation of a pedological statement about 22IT606.

1. A mature, well-developed upland soil of the Smithdale series overlies the Pleistocene terrace (Soil Survey Staff 1979:16).

2. Characteristic soil horizons are an Ap (plowzone), B21t, B22t, B23t, and C (the Pleistocene terrace) (Soil Survey Staff 1979:36-37).

3. The upper horizons, Ap and B21t, represent minor accretion of organic debris from the aboriginal occupation with minor colluvial translocation of sediments over the terrace, whereas "in situ" sediment weathering with minor fluvial deposition characterizes the lower horizons.

4. All areas except the southern portion are severely deflated.

5. Artifacts occur within the Ap and the uppermost portion of the B horizons.

6. Soil colors are light (i.e., no dark brown midden), mainly 7.5YR 1/6 and 10YR 5/8.

Selected profiles from the test pits and from Profile 2 are illustrated in Figures 9.6, 9.7, and 9.8.

CULTURAL REMAINS

Test pit and feature excavation and surface collections produced lithic, ceramic, historic, and biotic assemblages. The lithic, ceramic, and historic material has been completely analyzed. Type frequencies and weights are tabularized and presented in Appendix I.

The identified biotic remains consist entirely of floral elements. The majority were recovered from floated feature fill;

specific information is included in appropriate feature descriptions below. Uncarbonized peach pits were identified from Level 2 of Test Pit 2 and from surface collections. This was expected as there was a living peach tree on the site at the time of the investigations.

SURFACE COLLECTIONS (Figure 9.9 and 9.10 a-c)

Surface collections contain both aboriginal and historic artifacts. Eleven temporally diagnostic projectile point/knives and several nondiagnostic projectile point/knife fragments and 34 aboriginal pottery fragments, mainly Woodland, were collected. Various types of chipped stone implements are present and, in frequency, predominate greatly over ground stone artifacts. For the 1179 pieces of lithic debitage (segregated into 1-inch, 0.5-inch, and 0.25-inch size grades), Heated Camden chert is the most common raw material. Glass, metal, ceramics, plastic, and miscellaneous items form the historic assemblage; these artifacts were found, generally, along the eastern portion of the site in relatively close proximity to the abandoned historic dwelling.

TEST PIT EXCAVATION

Excavation in Test Pit 1 and Test Pit 2 was terminated in Level 10 and Level 7 respectively. Radical decreases in artifact recovery indicated the lower terminus of cultural deposits; the infrequent artifact occurences below these boundaries were likely the result of bioturbation. In Test Pit 1, the cultural deposits extend from the modern ground surface to either Level 5 or Level 6. The upper 10-15 cm may have have been disturbed by historic agricultural activities. Cultural deposits in Test Pit 2 appear to be restricted to the plowzone. Severe krotovina action (Figure 9.7) is probably responsible for artifact recovery below this.

Summary distributions of artifact classes by level for Test Pit 1 and Test Pit 2 are contained in Tables 9.1 and 9.2. The distribution by level of artifact types within each artifact class can be found in Appendix I.

Quantitatively, nonutilized debitage and introduced rock are the largest artifact classes recovered from both Test Pit 1 and Test Pit 2. In the debitage categories, flakes of Unheated Camden or Fort Payne chert are less common than those of Heated Camden chert. Ground stone artifacts, absent in Test Pit 2, are rare in Test Pit 1. Temporally diagnostic projectile point/knives (Figure 9.10 d-g) and ceramics, relatively infrequent in either test pit, are mainly Woodland types; the Kirk Corner Notched projectile point/knife (Level 5) and the Eroded Shell Tempered potsherd (Level 2) recovered in Test Pit 1 are exceptions to this. Chipped stone implements occur through Level 8 (no recovery in Level 7) in Test Pit 1, but are confined to the upper two levels in Test Pit 2. Core, preform, and biface artifacts, present in Levels 1 and 2 in Test Pit 2, continue through Level 5 in Test Pit 1. The historic artifacts, with one exception, were recovered within 20 cm of the modern ground surface.

FEATURE EXCAVATION

The location of all features from Site 22IT606 is presented in Figure 9.2. The detailed information of each feature is in Supplement III to this report in the Feature Catalog for Site 22IT606. This contains the provenience, plan view, dimensions, and other specific data by feature. The cultural material recorded for each feature is located in Appendix II of this report.

Feature 1 was discovered in the exposed profile of the site on the extreme southern edge of the site. Approximately two-thirds of the feature fill were intact; erosion had claimed the remainder (this may be evidence for site truncation by Mud Creek). Features 2 through 18 were encountered during trench clearance.

Four feature classes are represented: historic midden (Feature 4), historic support posts (Features 8, 9, 12, 13, and 17), refuse pits (Features 1, 2, 14, and 18, and possibly Features 11 and 16), and features of indeterminant origin or function (Features 3 and 5). Features 6, 7, and 10 were insignificant soil stains and were voided. Feature 15, a fired clay concentration, was voided when it became apparent that it lay within the Feature 14 fill. Description of and comments regarding each feature follow.

Feature 1

Circular in plan-view (diameter = approximately 90 cm) with vertical walls extending to a rounded bottom (depth = approximately 84 cm).

Dark brown fill contrasting sharply to the surrounding light brown matrix.

Artifact density - moderate: lithics, fired clay, and carbonized plant remains. Ceramics absent (except for one sherdlet).

Diagnostics: none.

Suggested function: refuse pit.

Cultural affiliation: unknown.

Comments: The absence of ceramics may indicate an Archaic cultural affiliation.

Feature 2 Figure 9.11

Roughly circular in plan-view (diameter = approximately 1.5 m); basin-shaped in cross section (depth = 51 cm).

Dark brown fill; light brown matrix

Artifact density - very high: lithics, ceramics, and carbonized plant remains (hickory, acorn, pine wood, and cone fragments, persimmon seeds, Smilex, and several as yet unidentified seeds or seed fragments).

Diagnostics: hafted bifaces (one Kirk that possibly had been retrieved and reworked by later people) (Figure 9.13), six Late Woodland/Mississippian Traingular projectile point/knives (Figure 9.13 a-f), and ceramics (Figure 9.13 h-l).

Function: refuse pit.

Cultural affiliation: Terminal Woodland.

Comments: The Terminal Woodland affiliation for this feature rests upon the six triangular projectile point/knives and the predominance of grog tempered and residual sand tempered over shell tempered ceramics. The presence of Alexander and Longbranch ceramics within the feature fill apparently resulted from aboriginal pit excavation which penetrated lower cultural deposits. The Kirk projectile point/knife has been reworked along its lateral margins, perhaps during Late Woodland times. Several C-14 samples were collected.

Feature 3

Small lithic and ceramic concentration lying directly beneath the plowzone (diameter = approximately 20 cm; depth = approximately 10 cm).

Artifact yield: sparse.

Diagnostics: grog tempered and bone tempered ceramics.

Function: unknown.

Cultural affiliation: Late Woodland.

Comments: none.

Feature 4

Large, but undefined areally, concentration of historic debris, mixed with aboriginal material.

Artifact yield: high.

Diagnostics: historic ceramics, glass, nails, plastic, etc.

Function: refuse pit.

Cultural affiliation: possibly late nineteenth century and definitely twentieth century Mississippi.

Comments: A small, square, wood frame house (9 m on a side) lay immediately northeast of this feature.

Feature 5

Irregularly shaped, both in plan and in profile (dimensions = approximately 1.0 m by 1.5 m; depth = approximatey 1.09 m).

Artifact density - high: lithics, ceramics, and historic debris.

Diagnostics: hafted bifaces (Figure 9.14 a-c), Kirk and Late Woodland/Mississippian Triangular, ceramics (Figure 9.14 d), and historic material.

Function: unknown; possibly a pit excavated historically for peach tree planting.

Cultural affiliation: unknown.

Comments: Excavation proved difficult due to the light brown fill being surrounded by a noncontrastive slightly darker brown matrix. Before excavation, a live peach tree, growing directly within the feature fill, was removed (an uncarbonized peach pit was recovered within the fill). This disturbance likely accounts for the very mixed nature of the artifact content of this feature.

Feature 8

Circular in plan view (10 cm in diameter) with vertical walls and a flat bottom; a ring of intact bark surrounding a loose, decomposed interior.

Artifact yield: none.

Diagnostics: none.

Function: pine support post.

Cultural affiliation: historic

Comments: Features 9, 12, 13, and 17 are in roughly straight alignment with Feature 8 and may be associated with the barn that local informants indicate was once present in this area of the site.

Feature 9

Same as Feature 8.

Feature 11

Roughly circular in plan view (diameter = approximately 25 cm); irregular cross section (depth = approximately 13 cm).

Feature fill is slightly darker and less compact than the surrounding matrix.

Artifact yield - low; ceramics, lithics, and carbonized plant remains.

Diagnostics: grog tempered and shell tempered ceramics.

Function: unknown, but possibly a small refuse pit.

Cultural affiliation: possibly Late Woodland.

Comments: The cultural affiliation designation is very tenuous; it rests upon two potsherds.

Feature 12

Same as Feature 8.

Feature 13

Same as Feature 8.

Feature 14

Irregular in plan view (dimensions = approximately 1 m by 2 m); irregular in cross section (depth = approximately 75 cm).

Slightly darker brown fill than the matrix. This situation made excavation difficult.

Artifact yield - moderate; lithics, ceramics, fired clay, and carbonized botanical remains (pine wood and cone fragments, fern spores, and unidentified seeds).

Diagnostics: hafted bifaces (one Late Woodland/Mississippian Triangular and one Flint Creek projectile point/knife) and ceramics.

Function: trash pit.

Cultural affiliation: Terminal Woodland.

Comments: One Late Woodland/Mississippian Triangular projectile point/knife and shell, residual sand, and the predominant grog tempered ceramics indicate a Terminal Woodland date for this feature. Partially carbonized pine has been identified from the botanical material. The project's botanical consultant indicates that, although uncarbonized at the core, unburnt pine could survive for a long time due to its high resin content, and a carbonized exterior would lend further protection against decay. Several samples were extracted for radiocarbon assay. The feature fill also contained a concentrated mass of large fired clay and daub fragments (Figure 9.12). A radiocarbon age of 412 ± 50 years: A.D. 1538 (DIC-2057) was obtained for this feature and may represent a Late Mississippian occupation based on the Late Woodland/Mississippian Triangular projectile point/knives and the Mississippian ceramics.

Feature 16

Circular in plan view (diameter = approximately 1.2 m); basin shaped in cross section (depth = approximately 18 cm).

Dark brown fill within a yellow, clayey matrix.

Artifact yield - low: lithics, fired clay, and carbonized plant remains.

Diagnostics: none.

Function: unknown, but possibly a refuse pit.

Cultural affiliation: unknown.

Comments: The west one-half of this feature was excavated; the remainder extended eastward into the bulldozer trench wall and remains unexcavated.

Feature 17

Same as Feature 8.

Feature 18 (Figures 9.15 and 9.16)

Apparently circular in plan view and basin shaped in cross section; exact dimensions are unknown.

Very dark brown fill within light brown matrix; discernable strata present (Figure 9.16).

Artifact yield - high: lithics, ceramics, carbonized plant remains (hickory nut, pine, and acorn have been identified) and fired clay.

Diagnostics: hafted bifaces (Kirk Corner Notched, Little Bear Creek, Late Woodland/Mississippian Triangular) and ceramics (Figure 9.14 g-i).

Function: refuse pit.

Cultural affiliation: Terminal Woodland.

Comments: The majority of the feature fill extended westward into the wall of the N/S bulldozer trench; therefore, only a small portion was excavated. The Terminal Woodland designation rests upon the shell and grog tempered ceramics and the Late Woodland/Mississippian Triangular projectile point/knife recovered from the excavated portion of this feature. Pit excavation by the aboriginal occupants that penetrated lower, artifact-bearing deposits may explain the two Archaic projectile point/knives within the feature fill.

DISCUSSION AND INTERPRETATION

Test excavation at 22IT606 entailed collecting the accessible portions of the site by controlled sampling to obtain a valid representation of the artifactual universe, gathering a general surface collection, hand excavating test pits to define the cultural stratigraphy, and initiating a subsurface feature search. These operations generated artifactual, ecofactual, feature, and pedological data sets. From these, preliminary statements can be derived regarding site formation, the componential makeup of the site, the location, extent, and types of intact cultural materials, and site function. This forms the basis for site evaluation.

SITE FORMATION

22IT606 occupies an upland position on a Pleistocene terrace outlier. The defined soil horizons reflect strong "in situ" pedological development modified at the surface by historic settlement and agriculture. The relatively low artifact density and the absence of well-defined cultural midden indicates that aboriginal activity has had little effect on the overall depositional history of the terrace.

COMPONENTS

Component identification rests upon projectile point/knife and ceramic chronological markers. Singly occurring diagnosrics are sufficient to suggest component presence, although such associations are tentative and tenuous.

Temporally diagnostic artifacts indicate a long, though not necessarily unbroken, culture history with aboriginal presence extending from Early Archaic to Late Woodland or Early Mississippian times. A historic (twentieth century) occupation is present. The relatively low artifact density (except within features) and the absence of heavily stained organic midden suggest sporadic, ephemeral occupation. The following components and their attendant diagnostics, indicated from surface, test pit, and feature artifacts, are defined for 22IT606:

Early Archaic

Seven Kirk Corner Notched and Two Big Sandy projectile point/knives.

Middle Archaic

One Sykes/White Springs projectile point/knife.

Late Archaic

Two Ledbetter/Pickwick and two Little Bear Creek projectile point/knives. The latter may be associated with the following Gulf Formational component.

Gulf Formational

Four Flint Creek projectile point/knives and six Alexander potsherds.

Middle Woodland

One Tombigbee Stemmed projectile point/knife, 15 limestone tempered potsherds (Long Branch Fabric Marked, Mulberry Creek Plain), and 72 sand tempered potsherds (Furrs Cord Marked, Saltillo Fabric Marked and Residual Sand). The 23 bone tempered potsherds (Turkey Paw Plain and Cord Marked, Eroded Bone), are assigned to late Middle Woodland.

Late Woodland

Eleven Late Woodland/Mississippian Triangular projectile point/knives, 244 grog tempered potsherds (Baytown Plain, Mulberry Creek Cord Marked, and eroded grog), and 3 pit features of Terminal Woodland affiliation.

Mississippian

Forty shell or shell/grog tempered potsherds. The triangular projectile point/knives mentioned above may be associated with the Mississippian component. Decorated shell tempered pottery is absent. Traditionally, the occurrance of shell tempered ceramics has been taken to signal a Mississippian occupation; however, such an association, at present, cannot be established firmly within the Upper Tombigbee Valley. The relative proportions of shell tempered to grog tempered ceramics within Features 2, 14, and 18 (shell tempered potsherds were rare elsewhere on the site) conform better to the Terminal Woodland Period as defined by Jenkins (1979:72) for the Central Tombigbee Valley. Therefore, a Mississippian component may not be present at 22IT606.

Historic

Glass, historic ceramics, various classes of metal, plastic, architectural remains, etc. This component appears primarily to be restricted to the twentieth century and derives from the house present on the site.

Discussion

Component integrity appears spatially limited. Several lines of evidence suggest that intact cultural deposits are probably absent throughout the northern two-thirds of the site, where erosion, plowing, and heavy machinery traffic have been especially severe. For instance, surface collections contain Archaic materials mixed with Gulf Formational and Woodland artifacts. Test Pit 2, which exhibits a dramatic artifact decrease directly beneath the plowzone (Table 9.2), supports the contention that the site is very shallow or totally deflated in this area. Furthermore, stripping within either the E/W or the northern one-half of the N/S bulldozer trench failed to reveal significant, well-defined aboriginal features.

Within the extreme southern portion of the site, however, intact cultural material has been isolated. Four aboriginal features (Features 2, 14, 16, and 18) and four historical support posts (Features 9, 12, 13, and 17) were uncovered toward the southern end of the N/S bulldozer trench and one aboriginal feature (Feature 1) was discovered on the south slope of the site. The aboriginal features were large, well-defined pits which generaly contained abundant artifactual material, including temporally diagnostic lithics and ceramics, and ecofactual elements, consisting primarily of floral remains.

The site is apparently deeper in this area. In Test Pit 1, artifact recovery in significant amounts continued 50 cm to 60 cm below surface (Table 9.1). The vertical array of most frequently occurring cultural materials in this test pit corresponds well with the 7.5YR 4/6 soil zone from the upper portion of its profile (Figure 9.4). This particular soil zone may represent extant "midden". Unfortunately, the frequency of temporally diagnostic artifacts from this test pit is insufficient to delimit units of cultural stratigraphy (Table 9.1).

The absence of this 7.5YR 4/6 soil zone either in Test Pit 2, where cultural material is virtually absent below the plowzone, or along the western slope of the site indicates that it is localized areally (compare Figure 9.6 with Figures 9.16 and 9.8) This further demonstrates that the northern areas of the site are deflated and likely devoid of intact material, whereas to the south, roughly between the south slope of the site and the southern periphery of the historic garden, undisturbed cultural deposits may exist (in addition to the intact features that have been documented).

SITE FUNCTION

Estimates of site function depend upon accurate delineation of the types of activities carried out during each occupational episode. Testing results provided adequate data for initial statements concerning site function for the Terminal Woodland and Historic occupations; however, due to the absence of identified intact cultural materials, site function for earlier occupations cannot be assessed.

During the historic occupation, the site supported a small, rural settlement from which several activities can be identified. The wooden house and single outbuilding (which appears to be a privy) indicate fulltime, on-site habitation. The historic midden, Feature 4, represents a waste disposal site used by the historic occupants. Fresh produce was obtained from the small garden located behind the house. The uncarbonized peach pits recovered during testing, the peach tree removed during excavation of the N/S bulldozer trench, and the several live fig trees remaining along the site's eastern margin substantiate local informant claims that an orchard once grew on the site. The linear pattern of four historic support posts, Features 9, 12, 13, and 17, may be associated with another historic structure, perhaps the barn reported to have stood on the southern end of the site.

Three features (Features 2, 14, and 18), which have been tentatively identified as refuse pits, represent the intact cultural materials assigned to the Terminal Woodland period. The presence of this feature type indicates that at least part-time occupation took place; the nature of the features' contents suggests that procurement and/or consumption aspects of the aboriginal occupants subsistence strategies occurred on the site. Additional types of activities have not been defined. However, it is suggested that during this occupation the site may have functioned as a temporary, perhaps permanent, campsite.

DIRECTIONS FOR FURTHER RESEARCH

The Terminal Woodland component, which remains poorly understood in the Upper Tombigbee Valley, will form the primary research focus during Phase II investigations at 22IT606. Three undisturbed pit features, which probably functioned for waste disposal, have been assigned to this temporal position. This suggests that during this occupational episode, the site may have functioned as a small, upland hamlet. If this cultural manifestation resembles Terminal Woodland components as described from the Gainesville Lake (Jenkins 1979:72), the presence of the attendant features, such as hearths and postmolds associated with aboriginal structures and burial pits, would not be unexpected. Wide area plowzone removal for conducting a large scale feature search would provide evidence to substantiate or reject this hypothesis. The southern area of the site should receive close scrutiny.

Upland sites remain poorly understood in the Upper Tombigbee Valley. The research potential for documenting undisturbed material is obvious. Although the site is deeper around Test Pit 1, the paucity of temporally diagnostic materials recovered from this excavation unit prevented making accurate statements concerning either component integrity or cultural stratigraphic units. To do this, it is recommended that at least one larger unit for hand excavation (e.g., 4 m by 4 m) be placed near Test Pit 1. This should increase the sample size of temporally diagnostic artifacts fourfold and permit reliable assessment of the vertical artifactual array.

Table 9.1. Test Pit 1 (106S/94W)
Artifact Class Frequencies per Level.

MATERIAL CLASS	LEVL (1)	LEVL (2)	LEVL (3)	LEVL (4)	LEVL (5)
PROJ. PT./KNIFE					
MISS/WOODLAND TRIANG.	0	1	0	0	0
TOMBIGBEE STEM	0	1	0	0	0
KIRK CN	0	0	0	0	1
UNID. FRAG.	0	3	2	0	0
CORE, PREFORM, BIFACE	2	4	2	1	1
CHIPPED STONE IMP.	21	19	18	1	8
NONUTL. DEBITAGE	261	883	562	210	150
GROUND STONE	0	1	3	0	0
INTRO. ROCK (Wt.)	470	1739	1163	431	153
CERAMICS					
ERODED SHELL	0	1	0	0	0
SHELL-GROG	0	0	0	0	0
BAYTOWN PLAIN	0	11	5	0	0
MULBERRY CK. CM.	0	0	1	0	0
ERODED GROG	1	0	0	0	1
TURKEY PAW PLAIN	0	1	0	0	0
ERODED LIMESTONE	0	1	0	0	0
RESIDUAL SAND PLAIN	0	5	3	0	0
SAND-OTHER	0	4	4	0	0
SHERDLETS (Wt.)	49	131	62	0	0
FIRED CLAY (Wt.)	0	0	16	14	10
HISTORIC	7	13	0	0	0

Table 9.1. Test Pit 1 (106S/94W)
Artifact Class Frequencies per Level (cont.).

MATERIAL CLASS	LEVL (6)	LEVL (7)	LEVL (8)	LEVL (9)	LEVL (10)
PROJ. PT./KNIFE					
MISS/WOODLAND TRIANG.	0	0	0	0	0
TOMBIGBEE STEM	0	0	0	0	0
KIRK CN	0	0	0	0	0
UNID. FRAG.	1	0	0	0	0
CORE, PREFORM, BIFACE	0	0	0	0	0
CHIPPED STONE IMP.	1	0	3	0	0
NONUTL. DEBITAGE	45	10	4	6	0
GROUND STONE	0	0	0	0	0
INTRO. ROCK (Wt.)	48	24	19	15	11
CERAMICS					
ERODED SHELL	0	0	0	0	0
SHELL-GROG	2	0	0	0	0
BAYTOWN PLAIN	0	0	0	0	0
MULBERRY CK. CM.	0	0	0	0	0
ERODED GROG	0	0	0	0	0
TURKEY PAW PLAIN	0	0	0	0	0
ERODED LIMESTONE	0	0	0	0	0
RESIDUAL SAND PLAIN	0	0	0	0	0
SAND-OTHER	0	0	0	0	0
SHERDLETS (Wt.)	3	0	0	0	0
FIRED CLAY (Wt.)	0	0	0	0	0
HISTORIC	0	0	0	0	0

Table 9.2. Test Pit 2 (62S/98W)
Artifact Class Frequencies per Level.

MATERIAL CLASS	LEVL (1)	LEVL (2)	LEVL (3)	LEVL (4)	LEVL (5)	LEVL (6)	LEVL (7)
PROJ. PT./KNIFE							
RESID. TRIANG.	1	0	0	0	0	0	0
UNID. FRAG.	1	0	0	0	0	0	0
CORE, PREFORM, BIFACE	1	1	0	0	0	0	0
CHIPPED STONE IMP.	23	3	0	0	0	0	0
NONUTL. DEBITAGE	354	81	29	5	8	1	1
GROUND STONE	0	0	0	0	0	0	0
INTRO. ROCK (Wt.)	633	101	16	14	13	11	18
CERAMICS							
BAYTOWN PLAIN	3	0	0	0	0	0	0
ERODED GROG	8	2	0	0	0	0	0
ERODED LIMESTONE	1	0	0	0	0	0	0
SAND-OTHER	5	2	0	0	0	0	0
SHERLETS (Wt.)	91	13	3	1	0	0	0
FIRED CLAY (Wt.)	33	5	3	2	1	0	3
HISTORIC	52	30	0	1	0	0	0

Table 9.3. Lithic Content per Feature.

MATERIAL CLASS	FEAT (1)	FEAT (2)	FEAT (3)	FEAT (4)	FEAT (5)	FEAT (8)	FEAT (9)
PROJ. PT./KNIFE							
MISS/WOODLAND TRIANG.	0	5	0	0	1	0	0
SMALL TRAING.	0	1	0	0	0	0	0
FLINT CREEK	0	0	0	0	0	0	0
LITTLE BEAR	0	0	0	0	0	0	0
KIRK CN.	0	1	0	0	3	0	0
UNID. FRAG.	0	3	0	2	2	0	0
CORE, PREFORM, BIFACE	0	1	0	1	1	0	0
CHIPPED STONE IMP.	5	57	1	9	15	0	0
NONUTL. DEBITAGE	129	1382	3	404	610	0	0
GROUND STONE	0	3	0	1	5	0	0
INTRO. ROCK (Wt.)	598	2905	26	2137	703	0	0
HISTORIC DEBRIS	0	0	0	1695	3	0	0

Table 9.3. Lithic Content per Feature (cont.).

MATERIAL CLASS	FEAT (11)	FEAT (12)	FEAT (13)	FEAT (14)	FEAT (16)	FEAT (17)	FEAT (18)
PROJ. PT./KNIFE							
MISS/WOODLAND TRIANG.	0	0	0	1	0	0	1
SMALL TRIANG.	0	0	0	0	0	0	0
FLINT CREEK	0	0	0	1	0	0	0
LITTLE BEAR CREEK	0	0	0	0	0	0	1
KIRK CN.	0	0	0	0	0	0	1
UNID. FRAG.	0	0	0	4	0	0	1
CORE, PREFORM, BIFACE	0	0	0	6	1	0	2
CHIPPED STONE IMP.	0	0	0	39	6	0	2
NONUTL. DEBITAGE	0	0	0	998	101	0	94
GROUND STONE	0	0	0	2	0	0	0
INTRO. ROCK (Wt.)	5	0	0	1172	197	0	375
HISTORIC DEBRIS	0	0	0	0	0	0	0

Table 9.4. Ceramic Content per Feature.

MATERIAL CLASS	FEAT (1)	FEAT (2)	FEAT (3)	FEAT (4)	FEAT (5)	FEAT (8)	FEAT (9)
MISS PLAIN	0	22	0	0	1	0	0
ERODED SHELL	0	8	0	0	0	0	0
SHELL-GROG	0	5	0	0	0	0	0
BAYTOWN PLAIN	0	44	4	0	4	0	0
MULBERRY CREEK CM	0	40	1	0	0	0	0
GROG OTHER	0	1	0	0	0	0	0
ERODED GROG	0	33	0	6	1	0	0
TURKEY PAW PLAIN	0	7	1	0	0	0	0
TURKEY PAW CM	0	10	0	0	0	0	0
ERODED BONE	0	4	0	0	0	0	0
MULBERRY CM PLAIN	0	5	0	0	0	0	0
LONG BRANCH FABMK	0	1	0	0	0	0	0
ERODED LIMESTONE	0	3	0	0	4	0	0
FURRS CM	0	16	0	1	1	0	0
SALTILLO FABMK	0	3	0	0	1	0	0
ALEXANDER INCSD	0	4	0	0	1	0	0
ALEX INCSD-PUNCT	0	0	0	0	1	0	0
RESIDUAL SAND PLAIN	0	30	0	0	9	0	0
ERODED SAND	0	132	0	7	19	0	0
SAND-OTHER	0	1	0	0	0	0	0
SHERDLETS (Wt.)	1	264	10	107	84	0	0
FIRED CLAY (Wt.)	14	36	1	84	49	0	0
DAUB (Wt.)	0	0	0	0	0	0	0

Table 9.4. Ceramic Content per Feature (cont.).

MATERIAL CLASS	FEAT (11)	FEAT (12)	FEAT (13)	FEAT (14)	FEAT (16)	FEAT (17)	FEAT (18)
MISS PLAIN	0	0	0	2	0	0	4
ERODED SHELL	0	0	0	3	0	0	0
SHELL-GROG	1	0	0	3	0	0	0
BAYTOWN PLAIN	0	0	0	14	0	0	11
MULBERRY CREEK CM	0	0	0	1	0	0	21
GROG OTHER	0	0	0	0	0	0	0
ERODED GROG	1	0	0	3	0	0	7
TURKEY PAW PLAIN	0	0	0	0	0	0	0
TURKEY PAW CM	0	0	0	0	0	0	0
ERODED BONE	0	0	0	0	0	0	[illegible]
MULBERRY CM PLAIN	0	0	0	0	0	0	0
LONG BRANCH FABMK	0	0	0	0	0	0	0
ERODED LIMESTONE	0	0	0	0	0	0	0
FURRS CM	0	0	0	0	0	0	0
SALTILLO FABMK	0	0	0	0	0	0	0
ALEXANDER INCSD	0	0	0	0	0	0	0
ALEX INCSD-PUNCT	0	0	0	0	0	0	0
RESIDUAL SAND PLAIN	0	0	0	0	0	0	0
ERODED SAND	0	0	0	5	0	0	3
SAND-OTHER	0	0	0	0	0	0	0
SHERDLETS (Wt.)	0	0	0	53	0	0	19
FIRED CLAY (Wt.)	0	0	0	4509	16	0	12
DAUB (Wt.)	0	0	0	23	0	0	0

Figure 9.1

Site 22IT606: Site location map

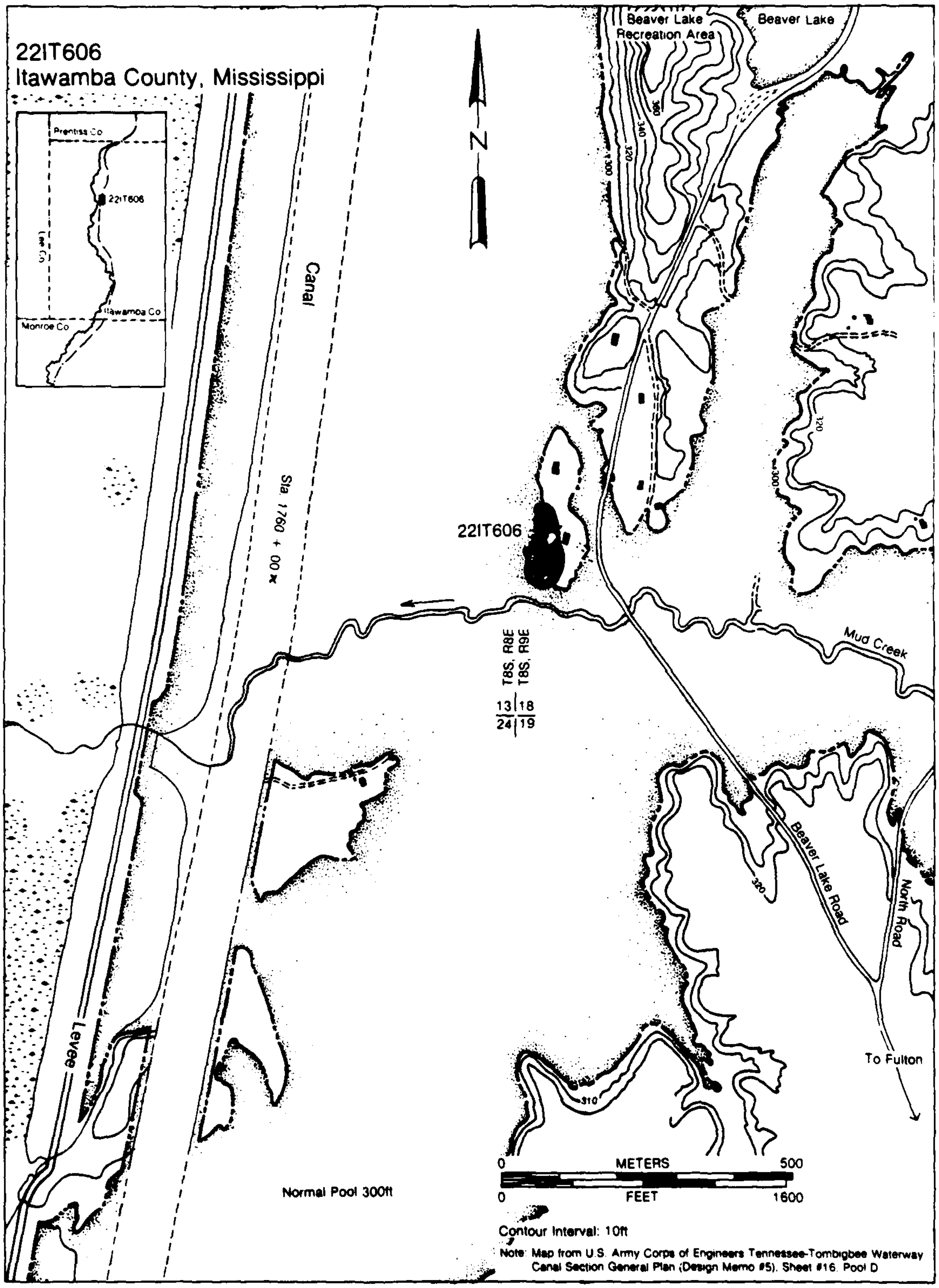

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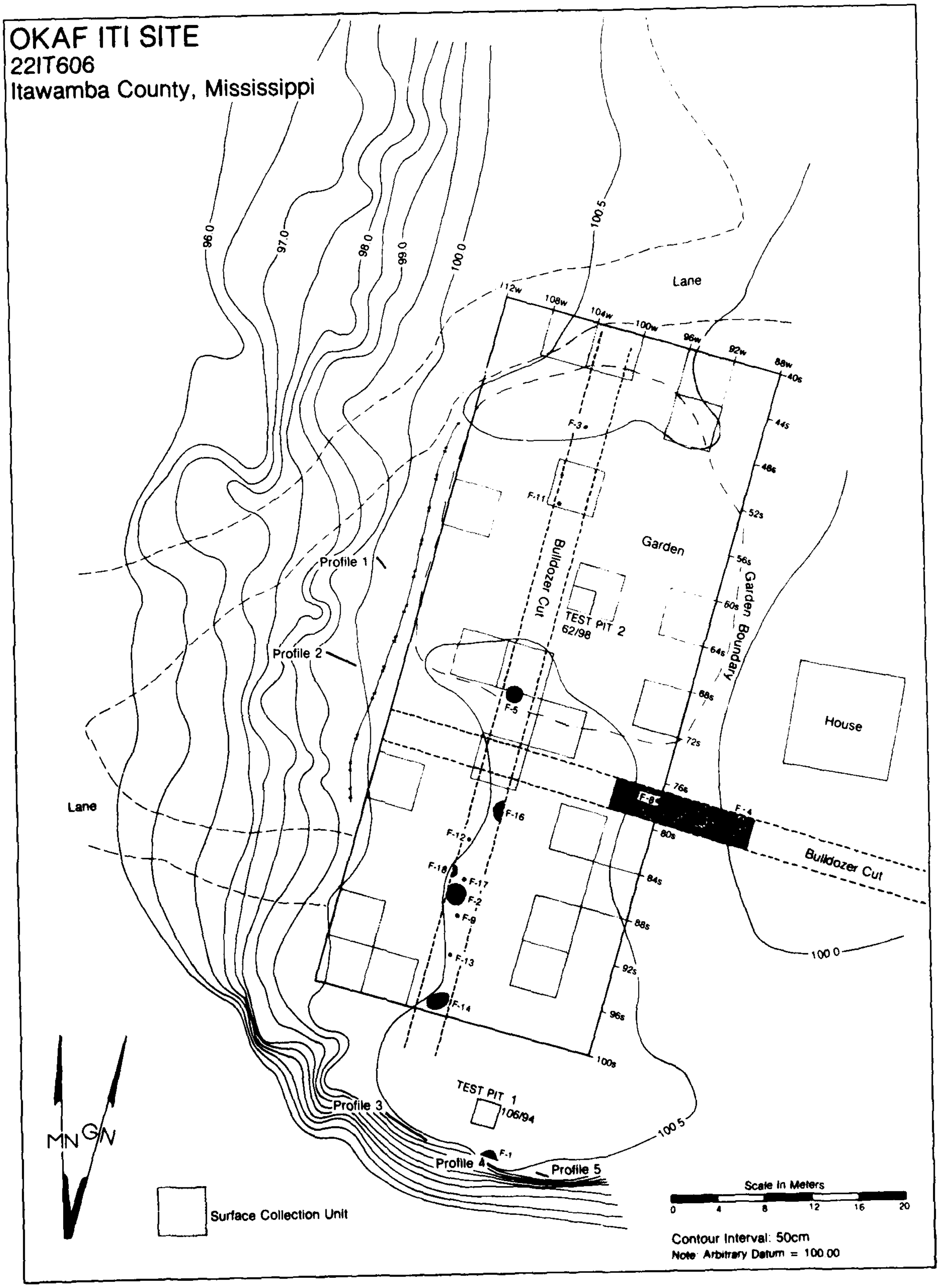
Figure 9.2

Site 22IT606: Topographic and unit location map



OKAF ITI SITE
22IT606
Itawamba County, Mississippi
96.0
97.0
98.0
99.0
100.0
100.5
Lane
112w
108w
104w
100w
96w
92w
88w
40s
44s
48s
52s
56s
60s
64s
68s
72s
76s
80s
84s
88s
92s
96s
100s
F-3
F-11
Garden
Bulldozer Cut
TEST PIT 2
62/98
Garden Boundary
Profile 1
Profile 2
F-5
House
Lane
F-8
F-4
F-16
F-12
F-18
F-17
F-2
F-9
F-13
F-14
Bulldozer Cut
100.0
TEST PIT 1
106/94
Profile 3
Profile 4
F-1
Profile 5
100.5
MN
GN
Surface Collection Unit
Scale in Meters
0
4
8
12
16
20
Contour Interval: 50cm
Note: Arbitrary Datum = 100.00

Figure 9.3

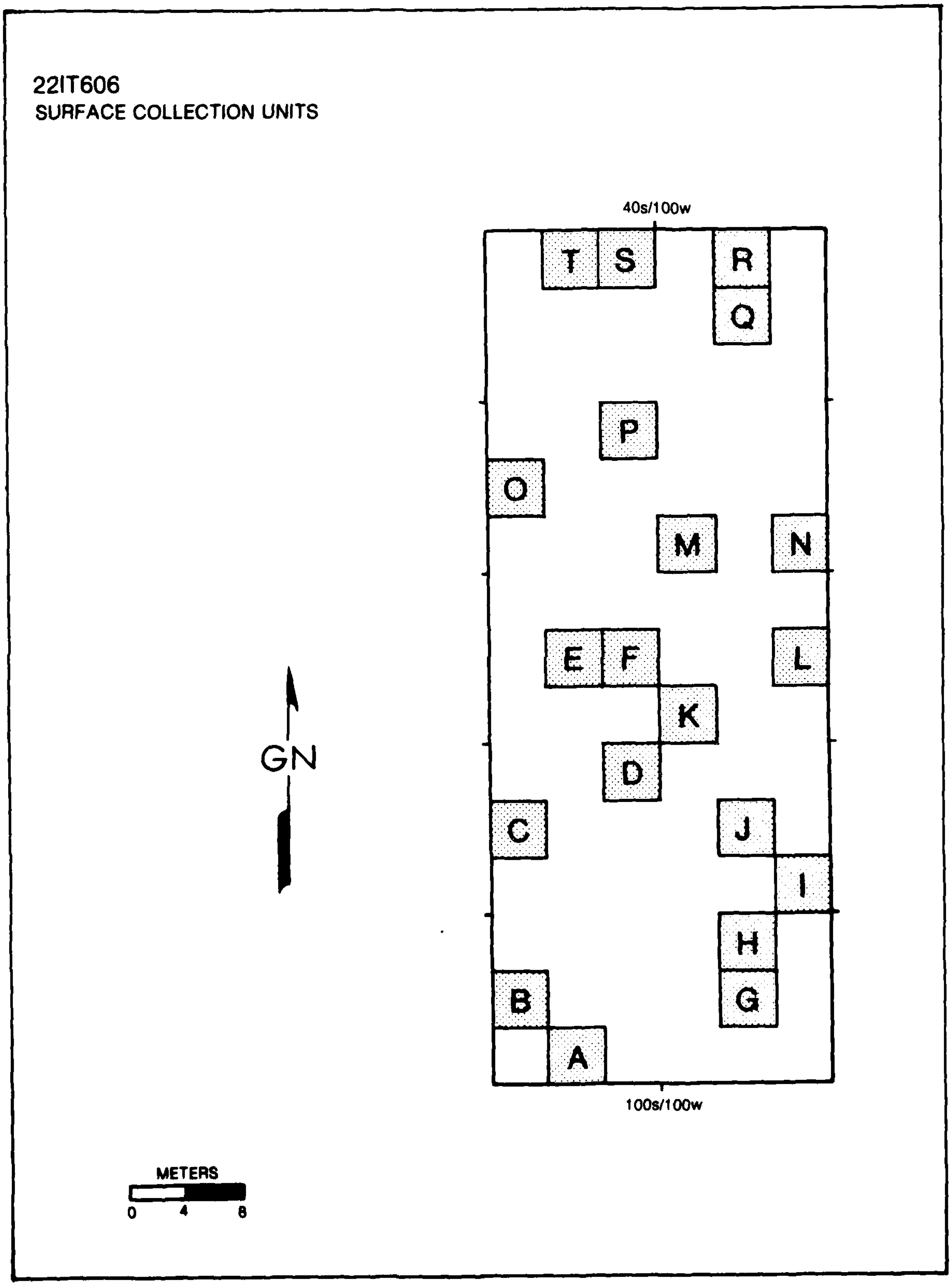
Site 22IT606: General view of site looking south

Figure 9.4

Site 22IT606: South slope of site looking west from Mud Creek

Figure 9.5

Site 22IT606: Surface collection plan



22IT606
SURFACE COLLECTION UNITS
40s/100w
T
S
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A
100s/100w
METERS
0
4
8

Figure 9.6

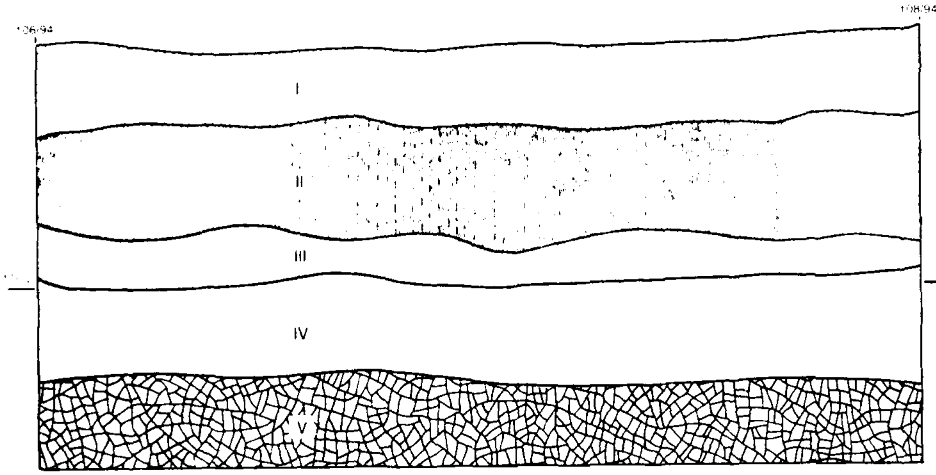
Site 22IT606: East profile of Test Pit Number One

Figure 9.7

Site 22IT606: West profile of Test Pit Number Two

Figure 9.8

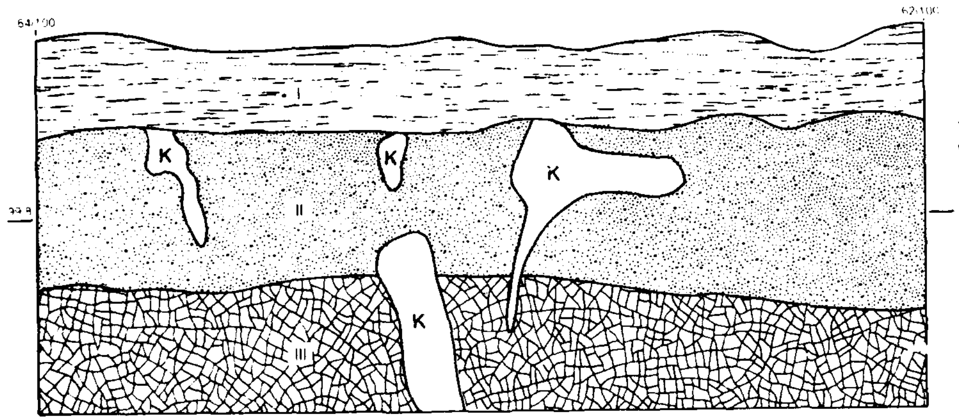
Site 22IT606: South profile of Trench Two



22IT606

TEST PIT 1 (106s/94w)
East Profile

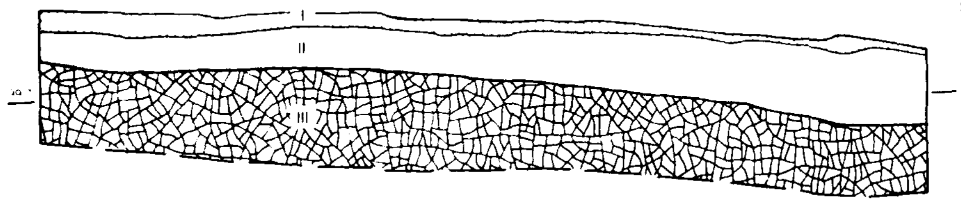
I. Dark brown (7.5YR 3/4) sandy loam, plowzone (?).
II. Strong brown (7.5YR 4/6) loam to sandy loam.
III. Strong brown (7.5YR 4/6) sandy loam, mottled with yellowish brown (10YR 5/8) sandy loam, transitional zone, increasing compaction downward.
IV. Yellowish brown (10YR 4/6) sandy clay loam, manganese staining on ped surfaces, small manganese nodules dispersed throughout, *increasing compaction downward.*
V. Yellowish brown (10YR 5/8) sandy clay loam, small manganese nodules dispersed throughout, beginning of reticulate mottling (light grey, 10YR 7/2), very compact.



TEST PIT 2 (62s/98w)
West Profile

I. Strong brown (7.5YR 4/6) sandy loam, plowzone.
II. Dark yellowish brown (10YR 4/6) sandy loam, small manganese nodules dispersed throughout.
III. Dark yellowish brown (10YR 4/6) sandy clay loam, beginning of reticulate mottling (light brownish grey, 10YR 6/2), very compact.

K *Krotovina*



PROFILE 2
South Face

I. Dark brown (7.5YR 3/4) sandy loam.
II. Yellowish brown (7.5YR 5/8) sandy loam, small nodules of manganese dispersed throughout.
III. Yellowish brown (10YR 5/8) sandy clay loam, mottled with yellowish brown (10YR 5/6), sandy loam, small manganese nodules dispersed throughout, beginning of reticulate mottling (light grey, 10YR 7/2).

Figure 9.9

Site 22IT606: Projectile Point/Knives from surface collection

a. Mississpiian/Late Woodland (13-1)
b. Pickwick/Ledbetter (130-6)
c. Pickwick/Ledbetter (130-7)
d. Flint Creek (130-2)
e. Flint Creek (130-4)
f. Flint Creek (130-3)
g. Little Bear Creek (130-8)
h. Sykes/White Springs (171-1)

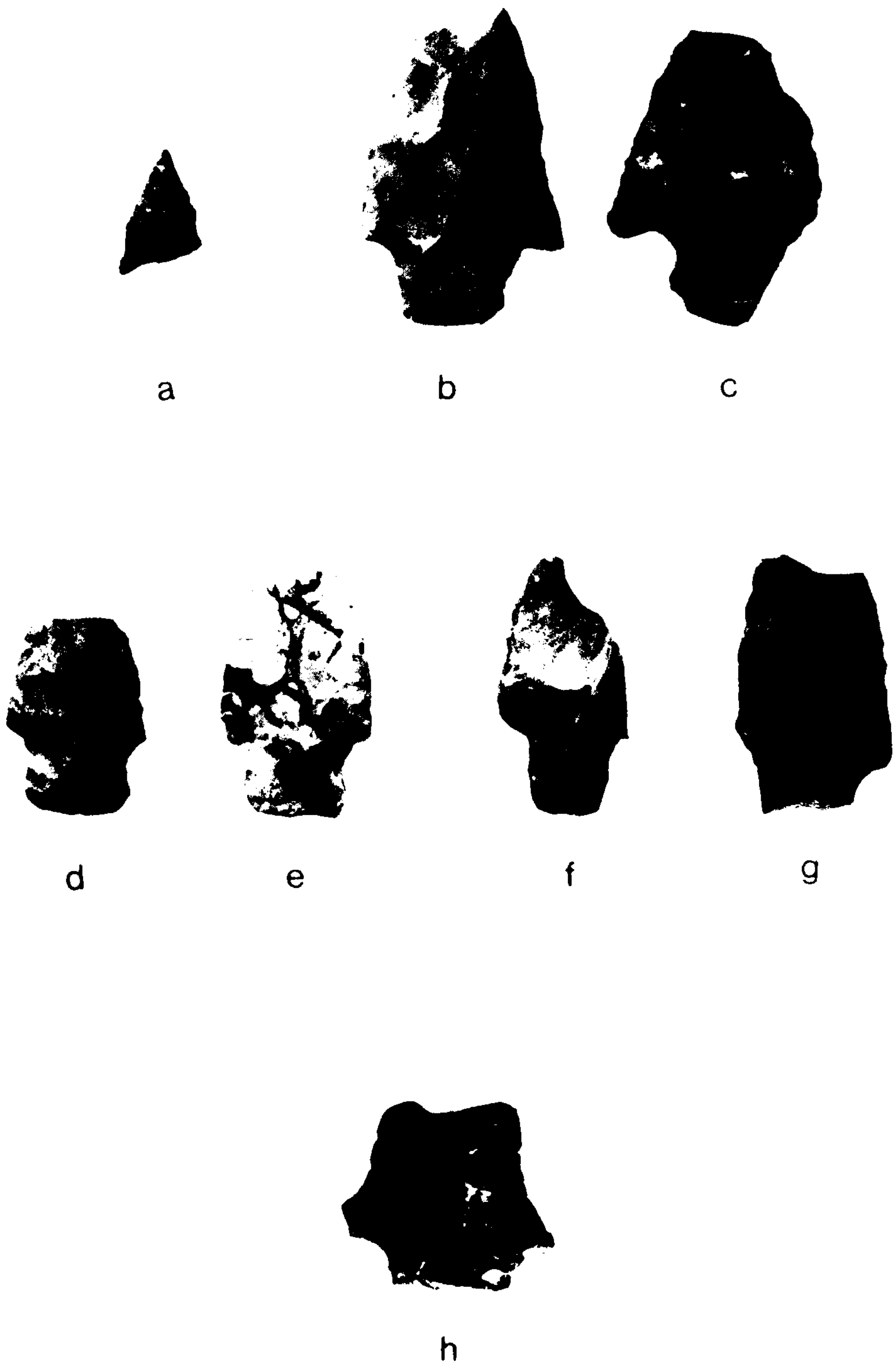

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Figure 9.10

Site 22IT606: Artifacts from the surface collection and Test Pit Number One

<u>Surface</u>
- a. *Big Sandy* (130-1)
- b. Kirk (188-1)
- c. Kirk (130-5)

<u>Test Pit Number One</u>
- d. Mississippian/Late Woodland (102-24)
- e. Tombigbee Stemmed (102-35)
- f. Shaft drill (102-35)
- g. Big Sandy (105-2)

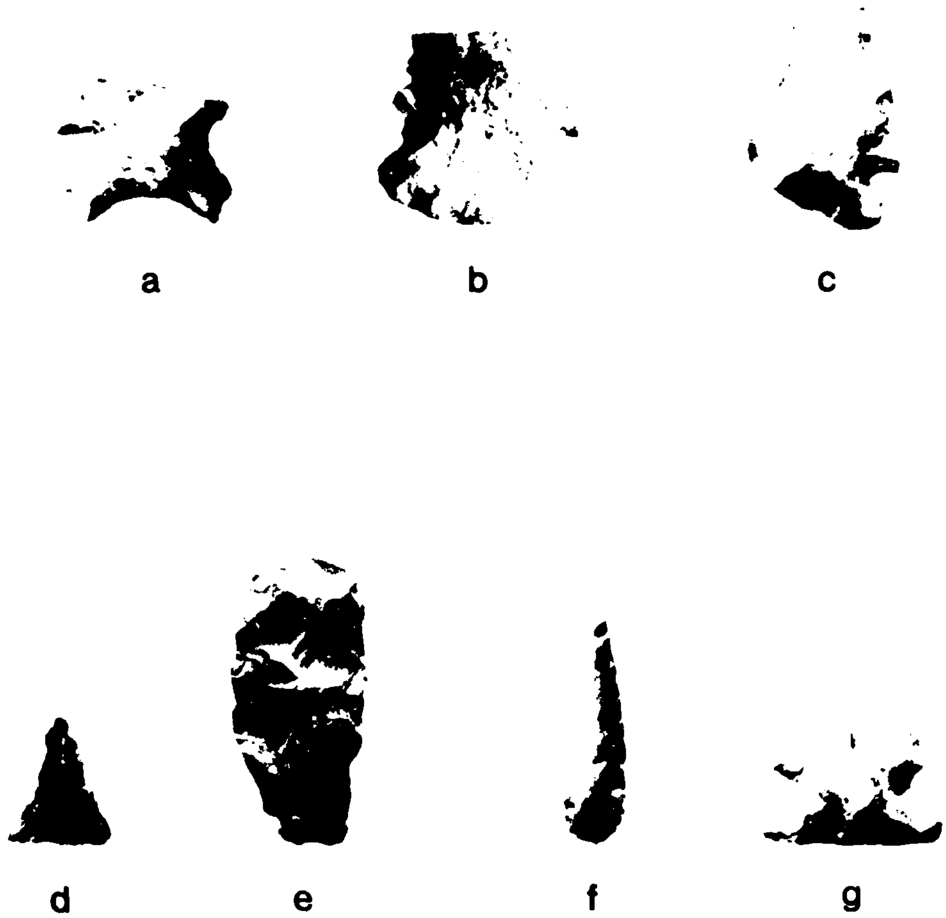
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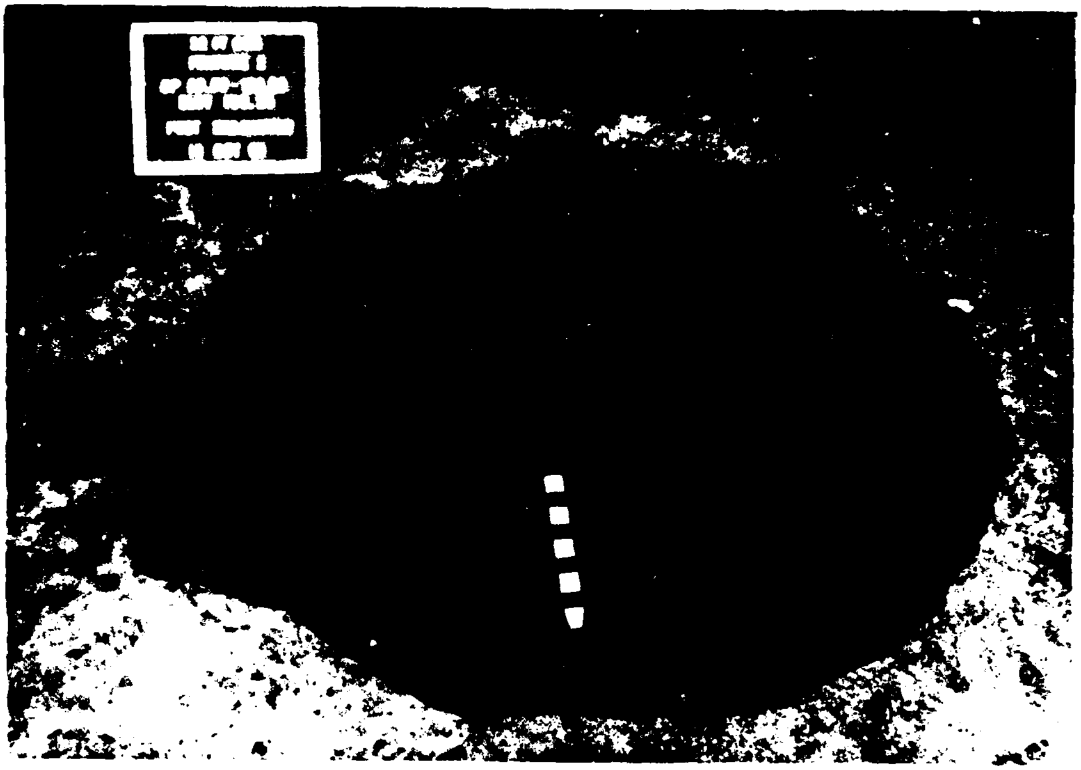
Figure 9.11

Site 22IT606: Feature 2 (excavated)

Figure 9.12

Site 22IT606: Feature 14 (exposed)




22 IT 606
FEATURE 14
CP 98.84-101.60
ELEV 100.42
FIRED CLAY CONC
16 OCT 80

Figure 9.13

Site 22IT606: Artifacts from Feature 2

a. Unfinished Triangular (155A-200)
b. Late Woodland/Mississippian (155A-195)
c. Late Woodland/Mississippian (155A-197)
d. Late Woodland/Mississippian (155A-196)
e. Late Woodland/Mississippian (147-145)
f. Late Woodland/Mississippian (147-144)
g. Kirk (147-143)
h. Alexander Incised (155A-105)
i. Furrs Cord Marked (155A-134)
j. Mississippian Plain (155A-12)
k. Mulberry Creek Plain (147-49)
l. Grog Tempered - Other (155A-81)

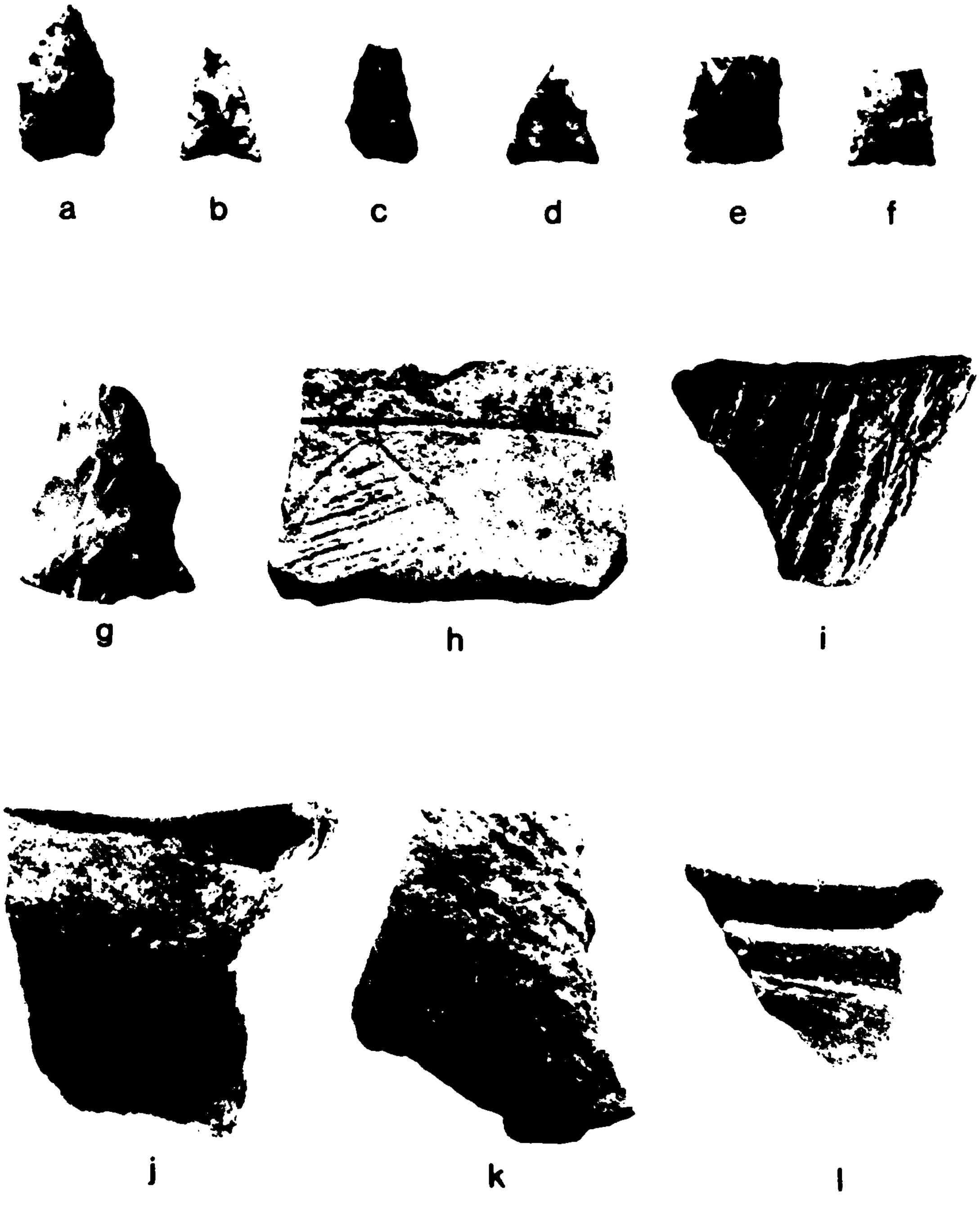

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Figure 9.14

Site 22IT606: Artifacts from Features 5, 14, and 18

Feature 5
- a. Late Woodland/Mississippian (167-39)
- b. Kirk (229-2)
- c. Kirk (167-38)
- d. Alexander Incised (167-9)

Feature 14
- e. Late Woodland/Mississippian (218-16)
- f. Flint Creek (258-1)

Feature 18
- g. Late Woodland/Mississippian (240A-13)
- h. Little Bear Creek (247-35)
- i. Plevna (247-36)

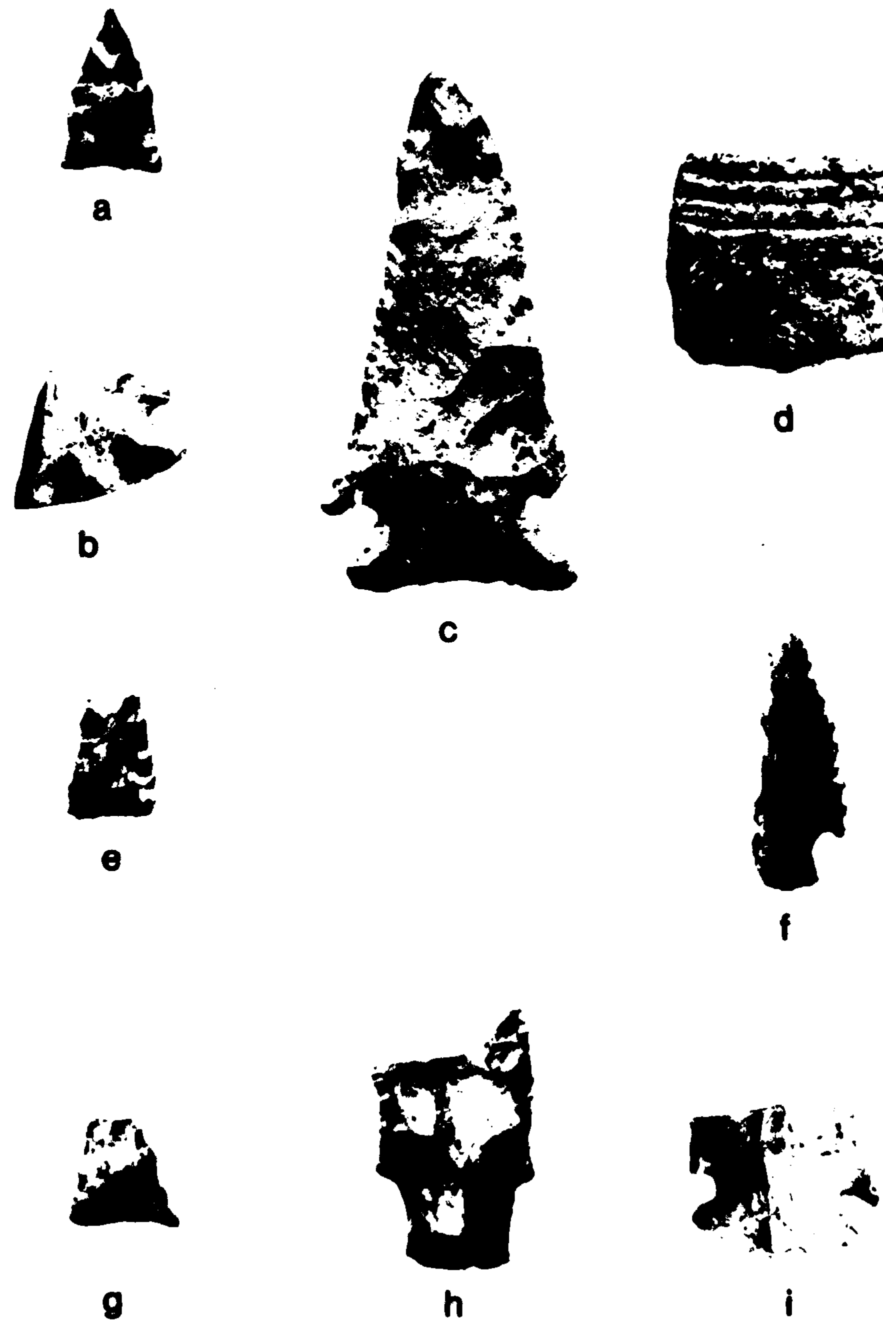
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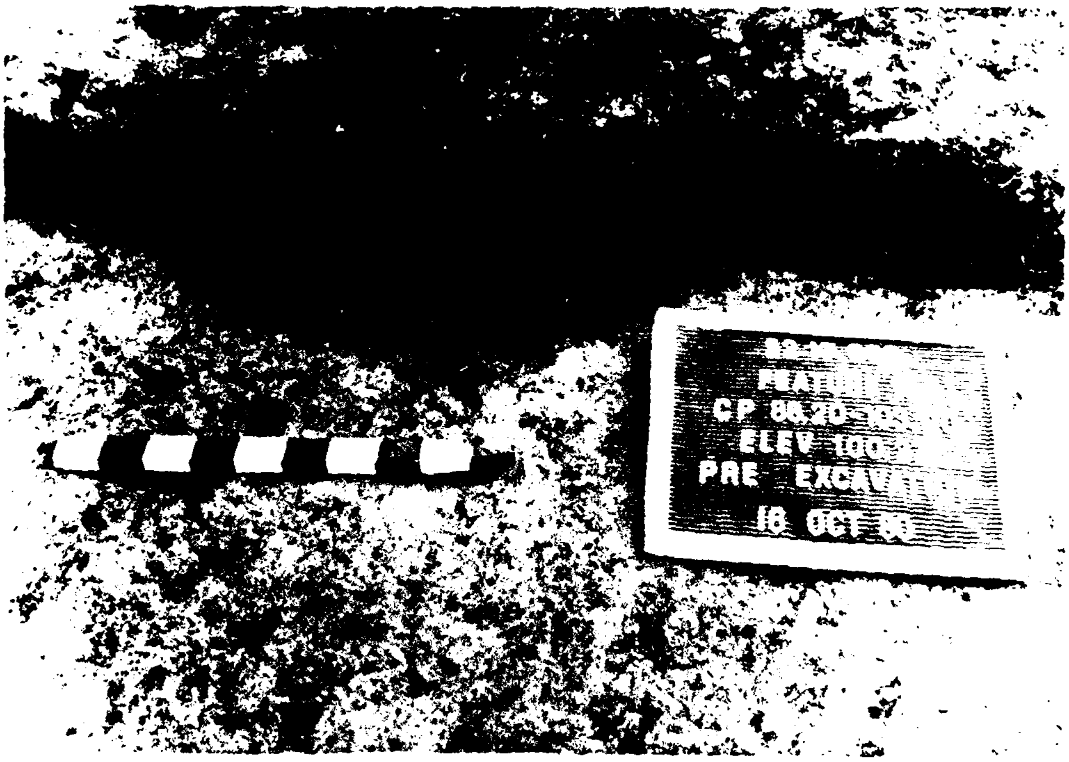
Figure 9.15

Site 22IT606: Feature 18 pre-excavation

Figure 9.16

Site 22IT606: Feature 18 in cross-section
(note stratigraphy)


ELEV
PRE
18 OCT


18 OCT

CHAPTER 10

THE HICKORY SITE (22IT621)

INTRODUCTION

The Hickory site (22IT621) was located in 1979 during a survey designed to locate midden mound sites within the impact area of the Canal Section of the Tennessee-Tombigbee Waterway (Figure 10.1). The location of the Hickory site was thought to be outside the construction right-of-way and, consequently beyond impact (Judith A. Bense, personal communication 1980). During the clearing of the Pool D impoundment area in early summer 1980, the site was determined to be in the construction path of the canal.

Judith A. Bense notified the U.S. Corps of Engineers, Mobile District (USCE-MD) in May 1980 of the revised location of 22IT621 and its probable destruction. Subsequently, Ernest Seckinger, USCE-MD, and Lloyd Chapman, Interagency Archaeological Services, Atlanta, conducted a preliminary archaeological assessment of the site and concluded that further archaeological testing was necessary to more fully evaluate the cultural resources of the locale.

The Office of Archaeological Contracts, University of West Florida was requested by the USCE-MD to implement a program to access the 22IT621 archaeological resources. Time was considered an essential factor since the locale had been withdrawn from the clearing operations that were in progress in the Pool D area. Fieldwork was implemented in mid-August 1980 and carried out in two sessions. The first extended from August 15th to the 27th and the second September 22nd to October 2nd. The fieldwork was initially interrupted to to complete several tasks at Site 22IT576. The onset of the fall rains during the first week of September flooded the 22IT621 excavation units and necessitated delaying the completion of the Hickory site testing project until the last of the month.

Shortly after the conclusion of the 22IT621 fieldwork, the site was released for construction. By October 6th the locale had been stripped of vegetation, the excavations filled, and the knoll nearly leveled. This was due to miscommunication between the project staff and contracting agency representatives. However, the deposits of interest were not harmed in any way.

SITE DESCRIPTION

The Hickory site is located in Itawamba County, Mississippi, approximately 14 km north of Fulton, the county seat. The site is situated in the SW 1/4 /SE 1/4 /NE 1/4, Section 12, Township 8S, Range 8E at latitude 34°24'5"N and longitude 88°24'13"W; Universal Transverse Mercator (UTM) coordinates are: Zone 16, Easting 371220, Northing 3807300 (Kirkville, Miss. Quadrangle, USGS 1975, 7.5 minute series).

22IT621 is scheduled to be destroyed by the canal excavation above Lock D in the Canal Section of the Tennessee-Tombigbee Waterway. The site is situated in the canal right-of-way approximately 150 m south-southeast of Station 1840+00 (Figure 10.1)

The Hickory site is located in the floodplain of the Tombigbee River near the eastern river valley escarpment. The river lies about 2.3 km to the west and the Pleistocene terrace escarpment is situated about 300 m to east-southeast (Figure 10.1).

22IT621 is an ovoid knoll which rises approximately 60 cm above the surrounding floodplain. The site measures about 25 m north-south and 38 m east-west. The knoll exhibits a steep northern face. The eastern and western margins of the rise grade into the surrounding floodplain less steeply than the northern side of the site but more so than the southern face (Figure 10.2). Generally this morphology is indicative of a parallel bar.

A relic stream channel circumscribes the northern perimeter of the site. The course of this relic channel was obscured to the east and west of the site because of waterway clearing operations. A stream or slough may have also bounded the southern perimeter of the site but, again clearing and rough grading of the pool area surrounding the site obscured this possible topographic feature.

When the testing program was initiated in mid-August, the Hickory site was an island of vegetation in the midst of a clearcut zone (Figure 10.3). The loamy sand sediments of this bottomland knoll supported a floodplain forest composed of mixed mesophitic forest (Table 3.2). The overstory was dominated by mature, second growth (?) oaks and hickories. The understory was characterized by small thickets and clumps of saplings, briars, climbing and prostrate vines which had pioneered the numerous excavations and back-fill piles of relic collectors.

Based on sparse evidence from other nearby sites, this locale probably has supported a mixed mesophitic forest since its formation. The site's formation appears to date to at least the early Holocene based on tentative evidence of an Early Archaic occupation.

The UTV floodplain forest is inhabited by a range of large and small mammals, birds, waterfowl, reptiles, and amphibians. White-tailed deer, bobcat, red fox, raccoon, skunk, mink, beaver, muskrat, gray squirrel, cottontail rabbit, and opossum are examples of mammals commonly found today in the Upper Tombigbee River bottoms. Turkeys, mourning doves, quail, red-tailed hawks, great horned owls, turkey vultures, blue and green herons, wood ducks, and mallards are examples of the larger avian species that inhabit ot migrate through the area. The water moccasin and copperhead are among the most frequently noted of the reptiles and amphibians living in the floodplain although a variety of colubrid snakes, land and freshwater turtles, frogs and toads also reside in the bottoms. The river, sloughs, and oxbow lakes in the nearby area support populations of bass, bowfin, carp, catfish, gar, perch, shiners, and sunfish.

Historic landuse appears to be restricted. The site may have been logged since Euroamerican settlement, as most of the Tombigbee bottoms have, but the size of some oaks and hickories suggest that such has not occurred recently. There is no evidence that the site was employed for agricultural purposes although the general area may have been used to graze or browse farm animals. Relic collectors, however, have frequently vandalized the site. Conservatively, an estimated 50% to 60% of the surface was disturbed by pothunters. The relic collector's excavations generally were concentrated on the northern and western sectors of the site. The pothunter's impact on the site also was compounded by the clearing and partial grading of a logging trail across the site during the waterway clearing operations of early summer 1980.

EXCAVATION STRATEGY

The purpose of the Hickory site testing program was to determine the archaeological components represented at 22IT621 and to evaluate the integrity of the cultural deposits. Time was an element in the testing program. The site had been withdrawn from contracted clearing operations in the area above Pool D and rapid assessment would facilitate resolving resource management goals and active construction schedules.

Two 4 m by 4 m blocks were judged to be a sufficient test for evaluation of the site based on time and manpower constraints. Placement of the blocks at 22IT621 was judgementally determined. The blocks were sited to avoid obvious historic intrusions and to sample the deepest possible deposits. The assumption was made concerning this latter point that the highest surface elevations reflected the deepest archaeological deposits.

After inspecting the site and determining the general location of the test blocks, horizontal and vertical control points were established. North-south and east-west baselines, designated 100W and 100S, respectively, were laid out with a transit and chain. Reference or grid stakes were set and four contiguous 2 m by 2 m units were gridded by triangulation thereafter.

Vertical control was imposed by establishing an arbitrary datum, designated 100.00m. The datum was a stake securely driven into the ground near the base of a large oak in northeast quadrant of the site. Benchmarks, nails driven into trees, were established around the site to provide cross references. Subsequently, the site was mapped with a plane table, alidade, and leveling rod (Figure 10.2).

Block excavations were conducted employing 2 m by 2 m squares and 10 cm arbitrary levels as the basic units of investigation. Fill excavated from these general provenience units was water screened through 0.25 inch hardware cloth. A control block was employed in each test block to recover special samples. These include perpetuity, pollen, biosilicate, soil and macrobotanical specimens. A segment of the control block also was processed through both a 0.25 inch and 0.06 inch to provide a crosscheck on material lost through 0.25 inch processing. In addition to these control block samples, a four liter macrobotanical sample was collected from each 2 m and floated to augment information on this data set.

The profiles of each wall were drawn, described, and photographed. Additional stratigraphic information was gleaned by examining the walls of the water-screen sump and those of the Block A drainage sump. These units were not formally described because of filling and slumping.

Two test blocks were excavated employing the above procedures (Figure 10.4). The four constituent units of Block A, 100-104S/98-102W, were excavated through Level 8. With the completion of this level, excavation was continued only in the western units, 100S/100W and 102S/100W. Here the work progressed through Level 15 where the digging was halted by ground water.

Test Block B, 110-114S/103-107W, was dug to the base of Level 6. Work was ceased in this unit initially because of weather and finally as a result of the modification of our field tactics.

Weather and the peculiar nature of the floodplain in the vicinity of 22IT621 caused some delays and adjustments to field conditions during the Hickory site fieldwork. Late summer rains saturated the surrounding floodplain, despite a drought of two months duration. This not only impeded access to the site but caused the units to flood from ground water. For some reason, rainfall run-off perches on or near the surface of the floodplain rather than draining into local tributaries and sloughs. These wet conditions and the encountering of a cemented ferruginous stratum necessitated modification of our plans to complete both test blocks. The decision was made, in concordance of the project's federal monitors, to continue the testing work only in Block A. Here work progressed two levels into the cemented stratum when additional rains flooded the units. At this time the decision was made to continue work only in the western units of Block A.

This was facilitated by digging a backhoe trench around the block to serve as a sump. Continuous, round-the-clock pumping of this trench permitted excavation to be continued over a meter below the water table. Unfortunately, the Block A sump was not dug deep enough to permit the excavation units to reach culturally sterile deposits. Groundwater seepage forced abandonment of Unit 100S/100W before Level 16 was done and Unit 102S/100W at the completion of Level 15 or between 170 cm and 180 cm below surface.

SOILS AND STRATIGRAPHY

The Hickory locale most probably originated morphogenically as a parallel bar. The ovoid configuration of this topographic feature coupled with a high northern elevation and a sloping gradient to the south indicate an upstream (north) orientation. This conforms to the southern flow of the Tombigbee River. These topographic characteristics are reinforced by the distribution of the underlying sediments. Coarse sands underlie the northern edge of the site. Southward at a distance of perhaps five meters finer sands are found at depths comparable to the coarse sands presumed to form the north upstream bank or face or the bar. Still further south, coring revealed fine sand, silts and clays.

The presence of cultural materials to a depth of nearly 180 cm below the surface and in a context inferred to date to at least the Early Archaic indicates that formation of the inferred bar probably dates to the early Holocene. Further aggradation of the bar is evidenced through time by its increased elevation as documented by the distribution of the cultural remains.

The role that occupants of the locale have had on the aggradation of the site is uncertain. They have contributed to the matrix of the site through discard or loss of ceramic and lithic remains and presumably introduced other materials as a result of residential activities. Differential preservation, however, has largely stripped the site of macrobiotic remains and other organic deposits that probably contributed to the buildup of the locale.

Three major stratigraphic zones were observed during the test excavations. First, a dark sandy loam to loam midden caps the site to a depth of about 50 cm to 70 cm. This zone is underlain by a very dark gray to black ferruginous loam to sandy loam which extends to a depth of approximately 115 cm. The third zone is composed of massive loose grey loamy sand with brown mottles that continue to the base of the excavations at about 180 cm in the deepest units (Figure 10.5).

Figure 10.6 illustrates the soil stratigraphy exposed in Block A. Although surface elevations vary somewhat and the thickness of the strata vary slightly, these profiles are representative of the soils/sediments encountered at the Hickory site.

The cultural stratigraphy roughly correlates with the three major stratigraphic units. The loam to sandy loam midden contains material dating from the Late Archaic through the Late Woodland/Mississippian periods. As would be expected the material tends to be distributed in chronological order although mixing is present.

The ferruginous zone corresponds approximately with the Middle Archaic period. The upper and lower segments of this zone, however, may contain occupational material from later and earlier assemblages.

The sandy loam zone forming the basal unit of the site is considered to correspond with the Early Archaic period. Although debitage was recovered throughout this unit, only a single diagnostic hafted biface, a Kirk corner notched type, found in the upper segment of this stratigraphic zone, pointed to an Early Archaic time frame. The superposition of artifacts representative of Middle Archaic and later periods is the principle reason for inferring an Early Archaic context for this stratigraphic unit.

CULTURAL REMAINS

FEATURES

No features were defined during the 22IT621 testing project. This most probably is the result of sampling error. Throughout the course of the Midden Mound Project the majority of intrusive features have been detected at the contact of midden and submidden deposits where contrast between fill and matrix improves markedly. Only two units penetrated this zone at 22IT621, thus reducing the probability of detecting intrusions in terms of area by 75%.

The absence of other feature types like lithic and bone clusters, hearths, and fired aggragates is less easy to explain but probably results from a series of phenomenon. Sampling error is possible. Poor preservation and aboriginal mixing of deposits also are considered probable contributors to the lack of archaeological features. Finally, the nature of the prehistoric occupations may vary in terms of site utilization from other investigated sites so that features produced or manufactured elsewhere as a result of an activity set(s) did not materialize at 22IT621.

ARTIFACTS

Ceramics

Block A

The distribution of all ceramics and miscellaneous fired items, including sherdlets, recovered during the archaeological testing of 22IT621 is presented in Appendix I of this report. Table 10.1 summarizes the 2,402 ceramic sherds excavated from Block A.

The ceramics from this unit have been grouped by time period to provide some insight to the components represented by the pottery recovered from this unit. This classification scheme generally correlates with temper type. Identifiable limestone and sand tempered, diagnostic of the Middle Woodland period, have been grouped together. Also, plain (residual) and eroded sand tempered sherds have been arbitrarily assigned a "transitional" Middle Woodland-Late Gulf Formational context since these sherds may represent either Miller or Alexander series types. Likewise, bone tempered sherds have been assigned a transition place in the scheme since they are found in Late Middle Woodland and early Late Woodland context (Jenkins 1979).

Table 10.2 illustrates the frequency of these "temporal" ceramic classes within Block A levels. Table 10.3 presents the frequencies of these classes between levels.

Several trends have been noted. Mississippian/Late Woodland shell and grog ceramics are very poorly represented. Shell tempered sherds are confined to Level 1.3 and the grog tempered pottery is disturbed throughout Levels 1.3 to 5.

The most commonly represented ceramic "type" is the nondiagnostic sand tempered group. Plain (residual) and eroded sand tempered sherds dominate nearly all level samples (Table 10.2) and commonly occur most frequently in Levels 1.3 through 3 which also contain the greatest quantities of sand tempered Miller and Alexander series types (Table 10.3).

The Middle Woodland ceramic group is most frequently represented in Levels 1.3 through 3. Levels 1.3 produced the highest quantity of this pottery group (Tables 10.2 and 10.3).

Late Gulf Formational period Alexander series types co-occur in terms of high frequencies with the Middle Woodland group. Levels 1.3 through 3 produced the greatest quantities of Alexander ceramics although this series is less well represented than later limestone and sand tempered types or earlier fiber tempered pottery (Tables 10.2 and 10.3). Alexander types, however, occur most frequently in Level 2.

Fiber tempered Wheeler series ceramics also occur with the greatest frequency in Levels 1.3 through 3 like the Middle Woodland and the Late Formational period ceramic types. Wheeler ceramics, however, form a greater proportion of the Level 3 pottery complex than any other diagnostic constituent (Tables 10.2 and 10.3). Wheeler types also dominate diagnostic categories of the Level 4 and 5 ceramic inventory.

The vertical distribution of ceramics indicates significant changes in ceramic quantities between Levels 3 and 4 and Levels 4 and 5. The quantity of ceramics in Level 4 is six times that recovered from Level 5 and the number of sherds found in Level 3 is 3.07 times greater than that found in Level 4.

The distribution of the ceramic groups, particularly the diagnostic types, and the quantities of these materials indicate several things. First, the ceramic components appear to be mixed throughout the upper levels of the site. Second, although the various ceramic complexes appear mixed, they may be roughly seriated. The Middle Woodland group is most frequently represented in Level 1.3. Late Gulf Formational period Alexander ceramics are found most commonly in Level 2 and Middle Gulf Formational period Wheeler series types occur most frequently in Levels 4 and 5.

The changes in the quantity and constituents of ceramic complexes of Levels 4 and 5 suggests tha Level 4 forms the base of the ceramic occupation in this block although Level 5 may mark the initial utilization of pottery in this area of the site. Changes in the quantities of ceramics between Level 1.3 and 1.2 and 1.1 have not been considered largely because these levels represent less than full excavated 10 cm levels.

Block B

The distribution of all ceramics and fired material, including sherdlets, recovered from Block B, 22IT621 is presented in Appendix I. Table 10.4 summarizes the 3,514 ceramic sherds excavated from this block.

Employing the same "temporal" classification scheme discussed above, Table 10.4 illustrates the distribution of ceramic groups within Block B levels. Table 10.5 presents the frequencies of these classes between levels.

Several trends have been noted. Mississippian/Late Woodland period ceramics are very poorly represented as they were in Block A. Nondiagnostic plain (residual) and eroded sand tempered ceramics form the majority of the ceramics recovered. Of the diagnostic ceramics, fiber tempered pottery occurs in greater quanitity than either Late Gulf Formational or Middle Woodland period types (Tables 10.4 and 10.5).

Block B ceramics were recovered most frequently from Levels 1.3 through 3. No patterns or trends, however, clearly emerge to permit inferences on the stratigraphic position of the various ceramic classes or to estimate the base of the ceramic occupations (Tables 10.5 and 10.6). Generally the ceramics are considered to be heavily mixed.

Discussion

Ceramics recovered from 22IT621 indicate that Mississippian/Late Woodland, Middle Woodland and Late and Middle Gulf Formational period occupations are represented at the site. These occupations, however, appear to be mixed.

The pottery recovered from Block A indicated that the ceramic components extend principally through Level 4. This was not demonstrated in Block B where ceramics were well represented into Level 6.

The distribution of sherds in Block A and B differ somewhat in their ceramic complexes. Block B exhibits a larger sample of shell, grog, and bone temper types, and Alexander and Wheeler series ceramics. Both blocks, however, contain approximately the same proportions of the Middle Woodland period limestone and sand tempered types. Block A exhibits a higher frequency of the non-diagnostic plain and eroded sand tempered types. The variations in stratigraphic distribution and ceramic complex constituency suggest the possibility of differential utilization of locales within the site. Also, the poor representation of the Mississippian/Late Woodland component indicates a possible change in subsistence/settlement pattern from the previous Woodland period. Whether this postulated change is the result of an alteration(s) in resource exploitation patterns, extraction activities, or the site ecotonial setting is uncertain.

Chipped Stone

Projectile Points

Block A: A total of 49 identified hafted bifaces and 98 proximal, medial, and distal point fragments were recovered from Block A. Projectile Point/Knives were recovered from Level 1.1 through 11 (Appendix I).

The majority (69%) of the identified hafted bifaces ($\underline{n}$ = 34) were confined to Level 1.1 through 4 (50 cm to 70 cm below surface) and principally represent Late Archaic and Gulf Formational period types. Flint Creek ($\underline{n}$ = 7) and Little Bear Creek ($\underline{n}$ = 17) forms occur the most frequently both within this zone and throughout the block. Flint Creek points are found in Levels 1.2 through 4 whereas Little Bear Creek hafted bifaces are confined to Levels 1.3 through 4. Other projectile point/knives recovered from these levels include a Tombigbee Stemmed and Cotaco Creek (Figure 10.7a) from Level 2, a Ledbetter-Pickwick (Figure 10.7g) from Level 4, one Gary from Level 4 and five Residual (unidentified) Stemmed from Levels 1.3 ($\underline{n}$ = 1), 2 ($\underline{n}$ = 3), and 4 ($\underline{n}$ = 1). Benton Stemmed points also were found in Levels 1.3 and 4. Seventy (70) hafted biface fragments also were recovered from the Level 1.1 through 4 zone.

Level 5 produced one Mississippian/Late Woodland Triangular, one Residual Stemmed, and ten projectile point/knife fragments. A Morrow Mountain Tounde Base point, two Residual Stemmed, and six hafted biface fragments were recovered from Level 6. Level 7 yielded one Benton Stemmed (Figure 10.8a), one Residual Stemmed (Figure 10.8f), and sever point fragments.

Levels 8 through 10 produced a small series of Middle and Early Archaic point types. Levels 8 contained an Eva point (Figure 10.8b) and one Cypress Creek type (Figure 10.8d) in addition to three point fragments. Level 9 yielded a single Morrow Mountain point (Figure 10.8c) and one distal fragment. A fragment of a Kirk point was found in Level 10.

The distribution of hafted bifaces recovered from Block A generally indicate that the cultural components are mixed, primarily in Levels 6 and above. Level 7, which roughly correlates with the middle one-third of the cemented ferruginous stratum produced Late Archaic or transitional Late-Middle Archaic hafted bifaces. Levels 8 and 9, the lower third of the cemented zone and the upper segment of the underlying sand stratum (a) contained diagnostic Middle Archaic and transitional Middle-Early Archaic point. Level 10 contained an Early Archaic Kirk Corner Notched hafted biface.

<u>Block B</u>: A total of 80 identified hafted bifaces and 141 unidentified proximal, medial, and distal point fragments were recovered from Block B. The distribution of these artifacts which were recovered from Levels 1.1 through 6 is presented in Appendix I.

The majority of identified bifaces recovered from this block are represented by Late Archaic and Gulf Formational period types. These hafted biface types principally are represented by Flint Creek ($\underline{n}$ = 11) and Little Bear Creek forms ($\underline{n}$ = 39). These two points constitute 63% of the identified hafted biface types recovered from this block. Flint Creek forms (Figure 10.7e,f) were distributed in Levels 1.3 through 4. Little Bear Creek points (Figure 10.7d,h) were found in all levels excavated in Block B although they were concentrated in the same levels as the Flint Creek type.

Other hafted bifaces recovered from Block B include: one Elora (Figure 10.7b) from Level 2, one Gary (Figure 10.7c) from Level 3, three Ledbetter-Pickwicks from Levels 2, 3, and 4, one McIntire from Level 1.3, three Benton Stemmed (Figure 10.7i,j) from Levels 2, 4, and 6, one Morrow Mountain (Figure 10.7k), and one Sykes-White Springs from Level 4, two Kirk Corner Notched from Levels 1.2 and 5, one Quad from Level 5, and 15 Residual (unidentified) Stemmed from Levels 1.2 (n = 5), 2 (n = 5), 3 (n = 1), and 5 (n = 1).

The distribution of hafted bifaces from Block B indicate that while Late Archaic and Gulf Formational period point forms predominate that they are scattered throughout the excavation. Further the recovery of points characteristic of earlier components that the integrity of the midden zone investigated in this block is questionable.

Discussion: The distribution of projectile point/knives indicate that the site has been occupied since at least the Early Archaic period. Level 10 and below, which correlates with the unconsolidated sands, contains a Kirk component. Levels 8 and 9, Block A, produce Middle and "transitional" Middle-Early Archaic hafted bifaces. The points from these levels which lie in the lower segment of the cemented ferruginous zone appear to be out of sequence. Cypress Creek and Eva forms which were recovered from Level 8 usually are considered to predate Morrow Mountain types, one of which was found in Level 9. Level 7, located in the upper segment of the cemented ferruginous zone of Block A produced Benton Stemmed and Residual Stemmed hafted bifaces which suggests the presence of a Late Archaic occupation. Level 6 and above in both test blocks yield a range of projectile point/knives that is dominated by Late Archaic and Gulf Formational types, particularly Little Bear Creek and Flint Creek types. A small number of hafted bifaces generally diagnostic of earlier and later occupations were mixed within this loam midden zone.

The heavy concentration of projectile point/knives and fragments, particularly in the midden zone, suggest that the locale was the focus of a range of processing and manufacturing activities. Most of the hafted bifaces have been reworked and exhibit edge damage in the form of rounding and step scarring. Edge serration also is common. These characteristics suggests that most of the hafted bifaces function as cutting and, perhaps, scraping implements. Butchering, hide preparation, wood and bone working tasks probably were partially implemented with these tools. Hunting and personal weapons also are most probably represented.

Cores, Preforms, and Biface Blades

Block A: A total of 24 cores, 20 preforms, and 30 biface blades, including fragments from each type, were recovered from Block A. Appendix I illustrates the distribution of the artifacts.

Cores and core fragments (Figure 10.8g) were recovered from Levels 1.2 through 4 ($\underline{n}$ = 17) and Levels 7 and 8 ($\underline{n}$ = 7). This distribution correlates with the ceramic occupation generally found in Level 4 and above and the Middle Archaic component represented in Levels 7 and 8. The sample size is so small and scattered that patterns of initial stage reduction have not been observed other than local gravels are being employed and reduced in a general bifacial mode.

Preform types (Figure 10.8 h-l) are more widely scattered stratigraphically than artifacts typed as cores. Preforms generally were recovered from Levels 1.3 through 14 although not necessarily from every intervening level. Ten preforms were contained in Levels 1.3 through 3 and Levels 7 through 9 yielded 7 preforms with 5 confined to Levels 7 and 8. Levels 10, 12, and 14 also produced a single preform each. Generally preforms were recovered in association with all inferred components.

Biface blades (Figures 10.10 a-c) including fragments were excavated from Levels 1.2 through 4, 7 through 9, and 10 and 13. This distribution parallels that of cores in that Levels 5 and 6 contained neither cores nor biface blades. Biface blades and fragments were recovered in contexts reflecting affiliation with all extrapolated components. The absence of artifacts in Levels 5 and 6 suggests that single fragments recovered from Level 7 may fall in an early Late Archaic or Benton component context.

Discussion - The core, preform, and biface class theoretically contains reduction stage products and by-products. Constituent categories and types, notably preforms and biface blades, overlap technologically and morphologically. This most probably is the result of misidentification during laboratory analysis.

In addition to this problem, the current classification scheme largely does not record edge morphology and attrition which may indicate either steps in the reduction process or usewear. Reduction stage attributes, which are primarily morphological in character, are employed to type artifacts in this class. Nearly all preforms and biface types, however, exhibit knife- or scraper-like edges which that are characterized by attrition in the form of scalar scarring, step fracturing, crushing, or rounding, or reworking through flake removal. Although the cores, preforms, and bifaces may represent reduction stage products and by-products, the complete life-cycle of these artifacts is not registered. Further specimens in this class may represent end products of a tool trajectory rather than secondarily worked or utilized products of by-products of a reduction stage(s).

Block B: A total of 16 cores, 32 preforms, 32 biface blades, and one rehafted biface, including fragments of each type, were recovered from Block B. Appendix I illustrates the distribution of these artifacts.

Cores and core fragments were excavated from Levels 1.1 through 6. The majority (*n* = 15) of these specimens were confined to Levels 1.3 through 4. Core fragments represented 50% of these artifacts and no distribution patterns have been noted for the remaining unifacial and bifacial forms.

Preforms (Figure 10.9 a-e) were recovered from Levels 1.1 through 6. The majority of preform specimens are Preform 2 types (*n* = 25) and were found in all excavated levels. Preform 1 specimens were recovered intermittently from Levels 1.2 (*n* = 1), 3 (*n* = 4), 4 (*n* = 1), and 5 (*n* = 1).

Morphologically distinct biface blades were confined to Levels 1.3 through 4. These specimens include triangular, narrow triangular, and expanding triangular forms (Figure 10.9 f-h). Biface blade proximal, medial, and distal fragments (*n* = 24) were excavated from Levels 1.1 through 6 and occurred most frequently in Level 2 (*n* = 7).

A single rehafted biface was found in Level 1.2. This artifact essentially represented a reworked hafted end scraper.

Discussion - Problems noted for the Block A core, preform, and biface blade class is a generalization which covers the specimens assigned to this class which were recovered from Block B.

Overall, members of this class indicate several stages in the reduction sequence(s) and the practice of either manufacturing reduction stage products. i.e. core, preforms, and bifaces, as part of a tool trajectory sequence or secondarily employing and, perhaps, modifying "discards" of the reduction system(s), for specific tasks. The edge morphology and attrition that is present on many preform and biface artifacts suggest that these represent implement categories rather than reduction stage by-products.

Miscellaneous Chipped Stone Implements

Block A: The excavation of Block A produced a range of artifacts (1,065) that are classed into scraper, drill, other chipped stone, and utilized flake categories (Appendix I). These categories are classed by traditional functional types and types/varieties established by morphological attributes.

A series of 25 scrapers of various types (Figures 10.10 d-i, 10.11 a, and Figure 10.12) were recovered from Block A. and distributed from Levels 1.2 through 12. Unifacial end (5) and side (7) scrapers are most commonly represented. All other forms - unifacial end-side, spokeshaves, bifacial flake, recycled and other scrapers - are represented by one or at most two specimens. The distribution of these latter scraper forms are scattered and do not appear to correlate with any particular component. This phenomenon is probably the result of sample size. Unifacial end scrapers, however, appear to cluster in Levels 1.2 through 2 (n=5) and 7 to 9 (n=3) which suggests a Late or Middle Woodland and Middle Archaic context. Unifacial side scrapers also cluster in Levels 1.2 to 3 (n=5) in the upper section of the occupation, but while present in Levels 9 (n=1) and 12 (n=1) do not appear to mirror the Middle Archaic cluster of end scrapers.

A series of 48 drills (Figure 10.11 f,h,i), drill fragments (Figure 10.10 j), and perforators (Figure 10.11 m) were excavated from Block A. Twenty one drills, 24 drill fragments, and three perforators were recovered from Levels 1.2 through 8 and 11. The majority of these specimens (n=32) were found in Levels 1.3 through 3. Generally, the drills and perforators are confined to levels yielding Late Archaic and post-Late Archaic period occupations. A single shaft drill was recovered from Level 11 which is considered to be Early Archaic period in context.

The other chipped stone artifact group includes six adzes, four choppers, one digging tool, one hammerstone-chopper, eight unifacial and bifacial knives, one wedge, and 213 unidentified unifacial-bifacial fragments. Two of the adzes were excavated from Level 1.3 (Figure 10.11 o) and four from Level 2 (Figure 10.11 p). Two choppers were found in Level 3, one in Level 4, and one in 7. The single digging implement was recovered from Level 2 and the one hammerstone-chopper was found in Level 7. Two unifacial flake knives were excavated from Level 2, one from Level 5, and one from 9 (Figure 10.10 k). The single bifacial flake knife (Figure 10.9 l) was found in Level 8. Three unifacial cobble knives were recovered from Level 5. The one wedge (Figure 10.11 q) was excavated from Level 4. Unidentified unifacial-bifacial fragments (n=213) were found in Levels 1.1 through 13 and 15. Levels 1.3 through 3 yielded between 27 and 46 specimens each. This cluster of 213 artifacts constitutes 71% of the unidentified fragment category. Levels 6 through 9 contained between 7 and 13 fragments totaling 40 specimens or 19% of the unidentified fragment group. With the exception of Level 1.2 which yielded 6 unidentified fragments, all other levels contained either one or two specimens.

Appendix I contains the distribution of 758 utilized flakes, prismatic blades (cf blade-like flakes) and chert chunks. Twelve 1-inch utilized flakes were recovered from Levels 1.2 through 7, excluding Level 2. Utilized flakes of the .5-inch variety (n=382) were excavated from Levels 1.1 through 15. One-quarter inch utilized flakes (n=340) were recovered from Levels 1.1 through 16. Three utilized prismatic blades were excavated from Level 3 and one from Level 6. Utilized chert chunks were confined to Levels 1.2 (n=7), 1.3 (n=5), 3 (n=2), 5 (n=3), 7 (n=1), 9 (n=1), and 10 (n=1). Generally, the distribution of utilized debitage, blades, and chunks mirrors the concentration in the upper segment of the site and correlates with the greater quantity of debris found in the midden.

Discussion - The majority of all tool types grouped in the miscellaneous class are found in the upper segment of the block which principally contains Late Archaic and ceramic occupations. This phenomenon is the result of more frequent or more intense use of the site during these periods. Sampling error also undoubtedly affects the apparent distributions since only one-half of the block was excavated below Level 8.

Artifacts of this miscellaneous class suggest that a range of processing and maintenance activities were practiced at 22IT621. Butchering and the working of bone, hide, and wood are generally tasks that might be performed with one or more of the items included in this class.

Block B: Test excavations in Block B produced a range of miscellaneous chipped stone implements (n=1,021). Appendix I presents the distribution of these implements and the classification of the artifacts are described below.

A series 15 scrapers (Figure 10.11 b-d) of various types were recovered from Block B. These were distributed in Levels 1.2 through 6. Unifacial side scrapers (n=5) are the most common form present and were confined to Levels 4 through 6. The remaining scrapers include end (n=2), end-side (n=3), spokeshaves (n=1), other (n=1), and unidentified fragments (n=3).

The series of 39 drills (Figure 10.11 g,j), drill fragments, gravers (Figure 10.11 k), perforators, and reamers (Figure 10.11 n) were excavated in Block B. Twelve drills and 19 drill fragments were recovered from Levels 1.2 through 6. The majority (n=25) of these, however, were confined to Levels 1.3 through 4. Two gravers were found, one in Level 1.1 and the second in Level

5. Four perforators were recovered from Levels 1.2 through 4. One reamer was excavated from Level 3 as well as one recycled reamer. Generally, these drilling, incising, and piercing implements are concentrated in levels containing the largest, most diverse inventories of ceramics which mainly represent mixed Gulf Formational and Middle Woodland period occupations.

The other chipped stone artifact group includes three unifacial and bifacial adzes, one chisel, two hammerstone-choppers, four unifacial and bifacial flake knives, one unidentified implement, and 164 unifacial and bifacial fragments. The uniface adze was recovered from Level 1.1 and the two bifacial specimens were found in Levels 2 and 3. The single chisel was produced from Level 1.3 as was one of the hammerstone-choppers. The second hammerstone-chopper was recovered from Level 6. The lone unifacial flake knife was found in Level 1.1 and the two bifacial examples (Figure 10.11 r,s) were excavated from Levels 2 and 3. The unidentified implement was recovered from Level 2. The 164 unidentified unifacial-bifacial fragments were excavated from Levels 1.1 through 6. Levels 1.3 through 4 produced between 25 and 33 specimens each. This cluster of artifacts represents 70% of the unidentified frragment category. The remaining 49 fragments were recovered from Levels 1.1 (n=6), 1.2 (n=15), 5 (n=18), and 6 (n=10).

Appendix I contains the distribution of 791 utilized flakes, prismatic blades, and chert chunks. Fourteen 1-inch utilized flakes were recovered from Level 1.3 through 4 and 6. Utilized flakes of the .5-inch variety (n=351) were excavated from Levels 1.1 through 6. One-quarter inch utilized flakes (n=423) were found throughout Levels 1.1 to 6. Two utilized blades were recovered, one each from Levels 2 and 3. A single utilized chunk was excavated from Level 4. The utilized debitage, blades, and chunks are distributed most heavily in the levels producing the highest quantity of cultural debris, Levels 1.3 through 4.

Discussion - As indicated in the above comments on the distribution of artifacts, the majority grouped in the miscellaneous implement class clustering most heavily in Levels 1.3 through 4. This "occupation" zone contains the greatest quantity of cultural debris and primarily represents mixed Gulf Formational and Middle Woodland components based on the ceramics. While smaller quantities of artifacts in Levels 1.1 and 1.2 may result from sampling error caused by lower excavated volume per level, i.e. full 10 cm levels were not excavated block-wide, the generally reduced samples obtained from Levels 5 and 6 may represent a less frequent or intense occupation.

In comparison with Block A, the miscellaneous artifacts generally reflect about the same distribution for the upper segment of the site. Although a few more scrapers were observed in Block B and slightly different inventories are present in the drill and other chipped stone categories between the blocks, these are not sufficient to postulate differential activity areas. The miscellaneous chipped stone implement inventory from Block B suggests as did Block A that a range of processing and maintenance activites were practiced at the site. Again, butchering and the working of hide, bone, and wood are generalized tasks that might be performed with one or more items included in this class.

Nonutilized Lithic Debitage

Block A: The excavation of Block A produced 16,300 nonutilized flakes of various raw materials (Appendix I). The size-graded debitage includes 58 one-inch, 2,448 half-inch, and 13,794 quarter-inch flakes.

Table 10.7 summarizes the debitage by size category and raw material type. Camden chert is the most prevalent form of raw material represented in the debitage. The thermally altered or heated variety of Camden chert dominates the material inventories of the half-inch and quarter-inch categories (Table 10.7) with the unheated variety second in frequency. In the one-inch debitage group, however, the unheated Camden occurs most frequently with the thermally altered variety second in frequency (Table 10.7).

Conglomerate and ferruginous sandstone form the third and fourth, respectively, most common materials represented in the one-inch and half-inch degitage groups. Within the quarter-inch group, however, Ft. Payne chert ranks third among the raw material types and, excluding the unidentified flakes, conglomerate ranks fourth followed by ferruginous sandstone.

Sandstone is the fifth most common material represented in the one-inch category followed by Fossiliferous Ft. Payne chert. Within the half-inch group, Ft. Payne chert ranks fifth, excluding the unidentified material, and is followed by Pickwick chert.

Debitage was recovered from Levels 1.1 through 15 and was encountered in the uncompleted Level 16. The distribution of debitage material types was examined by charting the quarter-inch flakes (Table 10.8). This category was selected because of its population size.

Several trends in distribution are present. Thermally altered and unheated Camden chert is present in all levels and constitutes the primary material in every level. The heated and unheated varieties of Camden chert inversly vary. An increase in the frequency of either variety signals a decline in the frequency of the other. High frequencies (70%+) of thermally altered Camden chert appear to cluster primarily in two zones, Levels 1.1 through 6 and Levels 13 through 15. Level 10 also exhibits a peak in heated Camden chert.

Ft. Payne chert is the third most common material represented in this size class. This material type clusters in Levels 1.1 through 8, with a minimum of 2.2% of Ft. Payne chert in each level between 1.1 and 7. This distribution suggests that Ft. Payne chert became a significant resource during the Late Archaic period and apparently was utilized throughout succeeding occupations.

A series of other chert types considered to be exotics tend to occur with Ft. Payne chert. Fossiliferous Ft. Payne is found in Levels 1.1 and 1.3 through 6. Blue-Green Bangor, Fossiliferous Bangor, Novaculite, and Pickwick cherts are confined principally to Levels 1.2 through 4. This suggests that their introduction into the lithic resource inventory post-dates the use of Ft. Payne and may correlate with the Gulf Formational, Middle Woodland occupations that are ceramically represented in these levels.

Heated and unheated Tuscaloosa chert, hematite, quartzite, Tallahatta quartzite and siltstone tend to generally correlate with Ft. Payne chert. The utilization of these materials probably is a reflection of the overall increase in lithic manufacturing taking place at the site which correlates with the collection of a broader range of material types.

Conglomerate, sandstone, and ferruginous sandstone are distributed generally between Levels 1.2 and 11. Each of these raw material types are more frequently represented in levels considered to contain Archaic period occupations. Conglomerate flakes occur most frequently in Levels 8 and 9 which yielded Archaic hafted bifaces. Sandstone flakes were found most frequently in Levels 7 and 8 which contained "early" Late Archaic and Middle Archaic projectile point/knives. Ferruginous sandstone flakes most frequently occurred in Levels 5 through 7 which produced diagnostic material ranging from the "early" Late Archaic hafted bifaces in Level 7 to a small amount of mixed ceramics in Level 5 which is inferred to contain primarily a "terminal" Late Archaic component.

The total debitage frequencies per level also appear to indicate major periods of occupations. The debitage counts from Levels 1.1 and 2 suggest a decrease in lithic reduction activities. This phenomenon, however, is probably related to sampling error since these levels were not fully excavated block-wide because of the topography.

Levels 1.3 through 4 produced the largest quantities of debitage recovered in Block A. This cluster, which ranges between 1,539 and 2,573 flakes, correlates with the major distributions of ceramics and is inferred to represent detritus produced principally by Gulf Formational and Middle Woodland occupations.

A third cluster is present in Levels 5 through 7 and ranges from 541 to 754 flakes. This series of levels is considered to correlate with the Late Archaic period at the site.

Levels 8 through 12 are considered to represent a fourth debitage cluster. Debitage totals were doubled for Level 9 and below to provide an average block-wide figure, since only two 2 by 2 m units were excavated in this block into the lower portion of the site. The Level 8 total reflects a real count whereas all subsequent level sums are adjusted. The Level 8 through 12 cluster ranges from 730 to 987 flakes with a peak of 1,026 pieces of debitage in Level 10. This series of levels are inferred to contain Middle and Early Archaic period components based on associated hafted bifaces.

Levels 13 through 15 appear to contain a fifth grouping of debitage which ranges from 174 to 340 flakes. No diagnostics were found in association with this series of levels, but minimally an Early Archaic period context is almost certain based upon the superposition of Middle and Early Archaic hafted bifaces in Levels 8 through 10.

Level 16 debitage has not been considered. The 17 flakes representing this level were recovered from a partially excavated level in one unit.

<u>Block B</u>: The excavation of Block B produced 23,637 nonutilized flakes and blades of various raw materials (Appendix I). This size graded nonutilized debitage includes 99 one-inch, 2,327 half-inch, and 19,933 quarter-inch flakes. Eight nonutilized prismatic blades were also recovered.

Table 10.9 summarizes the flakes and blades by raw material type. Camden chert is the most prevalent form of raw material present. The heated variety dominates the material inventories of all flake size grades and nonheated Camden chert is the second most frequently represented type. Ferruginous sandstone ranks as the third most common material of the one-inch and half-inch flake categories, excluding unidentified types. The third most frequently represented material of the quarter-inch flakes is Ft. Payne, which is followed by ferruginous sandstone. Ft. Payne chert ranks as fourth within the half-inch flakes. The fifth most frequent material in the half-inch and quarter-inch flakes categories is conglomerate.

Debitage was recovered from Levels 11.1 through 6. The distribution of debitage raw material types was examined by charting the quarter-inch flakes (Table 10.10). This category was selected because of the size of its population.

The same trends and distributions noted for the upper levels of Block A are duplicated in the material recovered from this block. These include:

1) The dominance of thermally altered Camden chert.
2) The inverse relationship between the heated and unheated varieties of Camden chert.
3) The third ranking prevalence of Ft. Payne chert.
4) The distribution or co-occurrence of minor types of "exotic" cherts and non-cherts principally in Levels 1.2 through 4 and generally post dating the introduction of Ft. Payne chert.
5) The presence in Levels 1.3 through 4 of the largest quantities of debitage excavated from the block.

Generally the same conclusions and inferences drawn from the Block A debitage for the upper levels may apply here. The status of Levels 5 and 6 in this block are less clear since they contain 209 and 109 ceramic sherds, respectively. This quantity of material is difficult to discuss as intrusive.

Ground Stone

Block A

The excavation of Block A produced 67 ground and polished stone items. Unidentified ground stone fragments (n=48) constitute the majority (71%) of the items included in this category. Two pitted anvilstones (Figure 10.13 a), one discoidal (Figure 10.13 f), nine hammerstones, three Mullers, one Muller-pitted anvilstone (Figure 10.13 c), one piece of ground hematite, and two ground flakes constitute the remaining specimens included in this category.

Levels 2 and 3 yielded the largest numbers of ground stone items, 21 and 16, respectively, but both level inventories were dominated by unidentified fragments. Generally, ground stone artifacts clustered in Levels 1.2 through 5 and 7 through 10.

generalizations can be advanced concerning the distribution ground stone types because of the sparse numbers. Implements and by-products, however, are represented.

Implements are inferred to include pitted anvilstones, hammerstones, mullers, mullers-pitted anvilstones, and, perhaps, the discoidal. The by-products class includes ground (abraded) hematite and ground flakes.

The implements are assumed to represent processing and manufacturing activites involving grinding and pounding tasks. Ground stone flakes, a by-product, may represent the manufacture of rejuvenation of ground stone tools. Ground hematite is also considered a by-product that may result from pigment production.

Block B

The excavation of Block B yielded 94 ground and polished stone artifacts that are classified by traditionally accepted functional types (Appendix I). Unidentified ground stone fragments (n=67) constitute the majority (71%) of the items included in this category. An anvilstone, one anvilstone-hammerstone, one pitted anvilstone, one concretionary bead (Figure 10.13 e), and bead preform, one gorget (Figure 10.13 d), six hammerstones, a mortar, one Muller, one Muller-hammerstone, four pieces of ground hematite or limonite, and eight ground stone flakes constitute the remaining specimens included in this category.

Levels 1.3 and 2 yielded the largest numbers of ground stone items, 19 and 18, respectively, although both level inventories were dominated by unidentified fragments. Few generalizations can be advanced concerning the distribution of ground stone type because of their sparse numbers. Implements, by-products, and personal(?) articles are represented.

Implements include anvilstones, anvilstone-hammerstones, pitted anvilstones, hammerstones, mortar mullers, and muller-hammerstones. Ground stone by-products are considered to be ground (abraded) pieces of hematite or limonite and ground flakes. Personal (?) artifacts include beads, bead preforms and gorgets.

The implements are presumed to indicate processing and manufacturing activities involving grinding and pounding tasks. Groundstone flakes, a by-product, may represent the manufacture or rejuvenation of ground stone tools. Ground (abraded) hematite and limonite fragments may indicate production of pigment. Beads, including preforms, and gorgets suggest items of personal adornment were utilized, if not manufactured at the site.

Introduced Rock

Block A

The Introduced Rock category contains lithic items that do not conform to attributes of other lithic implements, reduction stage or by-product categories. Materials ascribed to this category were classed on the basis of lithologcial, numerological, or morphological attributes. Some materials incorporated in this group may occur naturally within the site and probably are not the product(s) of cultural activity.

Introduced Rock was recovered from Levels 1.1 through 15 and totaled 67,963 g or 68 kg (Appendix I). Table 10.11 summarizes these category by level and raw material types. Frequencies are expressed in percentages.

Ferruginous sandstone is the most common rock material recovered. This material forms 80% of the category (Table 10.11). Sandstone fire-cracked chert chunks, cobbles/pebbles, and conglomerate form the next largest components of the Introduced Rock category. These materials each constitute between 1.5% and 8.2% of the population (Table 10.11). Other members of this category each from less than 1% of the Block A sample.

The distribution of Introduced Rock indicates that a majority (53.21%) of the population was recovered from Levels 1.3 through 3. A second cluster of Introduced Rock is considered to be represented by the material recovered from Levels 5 through 8. Material quantities collected from these levels range from 4,063 to 5,438 g. Level 4 perhaps should be included in this cluster but the increase of about 1000 g from the underlying unit, Level 5, suggests that this level is trending toward the Level 1.3 to 3 concentration. Similarly, Level 9 possibly should be included with the Level 5 through 8 cluster. Quantitatively, the amount of Introduced Rock collected from Level 9 represents, almost precisely, the mean of the Level 8 and 10 samples. Both the Level 9 and 10 samples were doubled to adjust these totals to an approzimation of a block-wide sample.

Only one other peak appears significant. Level 13 produced 439 g when, if doubled to adjust this total to a block-wide, yields a sample of 986 g. Both the overlying and underlying levels contained samples representing only 30% and 18%, respectively, of the Level 13 total.

These Introduced Rock clusters generally correlate with other material remains. The Level 13 material is considered to be associated with an hypothesised Early Archaic component. The extrapolated cluster extending from Level 5 through 8 and, perhaps, 9 correlates with Late and Middle Archaic period occupations.

The Level 1.3 through 3 cluster which also may include material from Level 1.2 and 4 correlates with the ceramic occupation of the site, which is considered to primarily represent Gulf Formational and Middle Woodland period components.

The activities which may be associated with this category are uncertain. The sandstones may have been modified into tools, utilized in cooking, employed in sweat lodges, or used to hold down mats. Other materials may have been used as a source of pigment whereas still others, like the chert chunks and conglomerate, may be by-products of a chipped stone industry(ies).

Block B

Introduced Rock was recovered from Levels 1.1 through 6 and totaled 58,021 g or 58 kg (Appendix I). Table 10.12 summarizes the contents of the category by level and raw material type; frequencies are expressed in percentages.

Ferruginous sandstone is the most common rock recovered and forms 80.9% of the population (Table 10.12). Sandstone, fire-cracked chert/chunks, cobbles, conglomerate, and petrfied wood form the next largest components of the Introduced Rock category (Table 10.12). These materials each constitute between 1.5% and 6.6% of the population (Table 10.11). Other category material types each form less than one percent each.

The ranking of these major constitutes duplicates the order of material recovered from Block A.

A majority (51.5%) of the rock was recovered from Levels 1.3 through 3. Material collected from this level cluster ranges from 8,737 g to 11,904 g. The quantity of material recovered from Level 4 indicates that it is allied with the Level 1.3 to 3 cluster and, combined, these levels yield 68.3% of the rock excavated from the block (Table 10.12).

A second cluster is formed by Levels 5 and 6. Material collected from these levels ranges from 6,945 g to 7,206 g (Table 10.12). Levels 1.1 and 1.2 are grouped together. These levels, however, were not fully excavated because of surface topography.

These distributions closely parallel those observed in Block A. The cluster contained in Levels 5 and 6 may represent a Late Archaic period occupation, albeit mixed with later ceramic components. The concentration of material in Level 1.3 through 4 correlates with the ceramic occupations of the site which is considered to primarily represent Gulf Fomrational and Middle

Woodland components. Activities that may be postulated from these remains have been sketched briefly in the Block A section.

BIOTIC AND FLORAL REMAINS

Samples were collected from control columns in each block to provide data of floral and faunal remains distributed throughout the site matrix. Time did not permit examination of these materials.

DISCUSSION AND RECOMMENDATIONS

DISCUSSION

The Hickory site (22IT621) probably formed initially as a parallel bar near the course of the Tombigbee River. The possibility exists, howeever, that the locale was initially developed as a point bar and subsequent fluvial events led to its continued formation as a parallel bar. The recovery of cultural material from fluvial sands at a depth of circa 170 cm indicate that the bar was formed at least by the Early Archaic period, c. 8000 to 9500 BP or the early Holocene. The locale aggraded principally by alluvial deposition to a depth of circa 70 cm below surface. The presence of a cultural midden extending from the surface to about 70 cm deep and pedo- and bioturbation obscures any fluvial depositional or erosional episodes that may have contributed to formation of the locale since c. 5000 to 6000 BP.

Components represented at the site can only be broadly defined and are based on ceramics and hafted bifaces. Late Woodland occupation(s) is postulated on the basis of a sparse number of shell-tempered sherds and Baytown Plain ceramics. These types suggest that a Miller III component is probably present (Jenkins 1979: 263-271). The recovery of a small number of shell-tempered sherds as well as the absence of Withers Fabric Marked ceramics suggests that only Early and Middle Miller III components may be represented at the site (Jenkins 1979: 267-268). Jenkins estimates (1979: 265-268) that these ceramic complexes date c.AD 600-900 and c.AD 900-1100.

A Middle Woodland component(s) is also represented based on the recovery of Cormorant Cord Impressed, Turkey Paw Plain, Mulberry Creek Plain, Long Branch Fabric Cord Marked, and Sattillo Fabric Marked ceramics. These types suggest that Miller I and Miller II (Jenkins 1979: 257-263) ceramic complexes are present and represent occupations dating c.100 BC - AD 300 and c.AD 300-600, respectively.

A Late Gulf Formational period occupation is indicated by decorated Alexander series ceramics. Jenkins notes (1979: 254) that this ceramic series appears in the central Tombigbee drainage about 500 BC. The initial Alexander occupation, therefore, may date to approximately this time or as late as c.100 BC.

A Middle Gulf Formational component(s) is marked by the presence of fiber-tempered ceramics of the Wheeler series, the earliest form of pottery in the Upper Tombigbee Valley (Jenkins 1979: 253). The occupation(s), characterized by fiber-tempered ceramics, is estimated to date c.1200-1000 BC to 500 BC.

Occupations represented by ceramic complexes are generally confined to the upper 70 to 80 cm of the site and tend to be concentrated from the surface to a depth of about 50 cm. Small amounts of pottery, however, were recovered to a depth of about 100 cm or into Level 9. While components have been identified on the basis of ceramic complexes, constiuent types of various periods are mixed throughout the pottery bearing midden deposits. This prevents accurate isolation and definition of discrete occupations and their associated assemblages of material remains.

Preceramic occupations or components are tentativley identified on the basis of hafted bifaces. Levels 5 through 7, which range between about 60 to 90 cm below surface, are considered to contain Late Archaic period occupations based on the recovery of Little Bear Creek points and Benton Stemmed hafted bifaces. Little Bear Creek points are inferred to date c.2500-1000 BC (Ensor 1979: 164); Oakely and Futato (1975: 101) obtained radiometric dates of 1650± 180 BC, and 1070± 75 BC from material in an occupation containing these points.

Benton Stemmed hafted bifaces are estimated to date in the range of about 5800-4500 BP (cf Ensor 1979: 165). Radiocarbon determinations from the nearby Poplar site, 22IT576, bracket the Benton component between about 3900 and 3600 BC (see Chapter 7). These dates conform to similar components at 22IT539 (Chapter 5) and 22IT590 (Chapter 8).

Although Levels 5, 6, and 7 are considered Late Archaic, these units contain ceramics, particularly Levels 5 and 6. The validity of assigning these levels to this period may be questionable and their inclusion in the Late Archaic is a "best guess" based on ceramic trends, hafted bifaces, debitage, and introduced rock distributions.

A Middle Archaic component(s) is assigned to Levels 8 and 9 which lie about 90-110 cm below surface. Morrow Mountain, Eva, and Cypress Creek (Beachum ?) points were recovered from this zone. The integrity of this zone is questionable because of the stratigraphic ordering of the Eva and Morrow Mountain points and the inclusion of the Cypress Creek (Beachum ?) hafted biface. However, the stylistic relationships between Eva and Morrow Mountain are not well understood and the chronological placement of Cypress Creek (Beachum ?) type is not resolved. Further, the sample size is limited which places constraints on any interpretations. Despite these problems, the Level 8 and 9 zone is considered to contain a Middle Archaic component(s) and is estimated to date c.6000-75000 BP (Brookes 1979: 41-42, Figure 29. cf Ensor 1979: 168).

Level 10 and below are postulated to contain an Early Archaic component(s). This interpretation is based on the recovery of a single Kirk-like corner-notched point from Level 10 and the presence of quantities of debitage extending into Level 16. Although no diagnostics were recovered from below Level 10, a small number of other artifacts including two preforms, a biface blade fragment, a drill, six unidentified tool fragments were excavated in addition to utilized flakes, non-utilized debitage, and introduced rock. Further, trends in the debitage from sub-Level 10 conform with those exhibited in the Kirk assemblage at 22IT576 (see Chapter 7). This postulated Early Archaic period component(s), which is found in the Level 10-16 zone, is estimated to date c.7500-9500 BP.

The activities that can be generally inferred from the material remains of 22IT621 have been discussed briefly in the Cultural Remains section of this report. The artifacts generally indicate a range of tasks that probably represent a series of procurement, processing, preparation, and manufacturing activities. The size and location of the site suggests that the locale served as a camp for folk exploiting the biotic resources of the surrounding floodplain. Whether this site functioned as a seasonal or more permanent base camp is open for question.

RECOMMENDATIONS

Additional investigation of the Hickory site is recommended to explore the postulated Early Archaic period component(s). This investigation should provide additional data and an expansion of our understanding of man's adaption to the Upper Tombigbee Valley during the early Holocene.

The recommended investigations should focus on two principal areas, man-land relationships, and the material remains forming the cultural record. Data on these subject areas should areas should supplement the culture history of the Upper Tombigbee Valley.

The investigation of man-land relationships should involve the study of geomorphology, paleoenvironments and biological remains. This information can be contrasted with data from other Early Archaic period sites in the Upper Tombigbee Valley. These comparisons are expected to yield preliminary statements on Early Holocene settlement and subsistence patterns.

The second research object aspect of the proposed excavations of 22IT621 is the investigation of the material remains forming the postulated Early Archaic occupation(s). The archaeological setting of the component(s) in a sealed context offers the opportunity to examine cultural deposits that appear to be undisturbed by more recent aboriginal occupation. Potential horizontal and verical relationships are probably represented in the Early Archaic horizon. The definition of these relationships through an analysis of lithic assemblage(s) could contribute to the understanding of the activities represented at Site 22IT621. Comparisons of assemblage data to other Early Archaic components in the Upper Tombigbee Valley may elucidate the nature of changes or stability in adaptive strategies. The identification of the reduction system(s), chipped stone products and by-products, should serve as a focal point for this analysis. Again, comparison with other known Early Archaic components should refine and expand our understandings of the cultural material of the period.

Table 10.1. Site 22IT621, Block A: Summary of Ceramic Types.

TYPE	NUMBER	PERCENT
Eroded Shell	2	0.08
Cormorant Cord Impressed	3	0.12
Eroded Grog	2	0.08
Mulberry Creek Plain	2	0.08
Longbranch Fabric Marked	1	0.04
Limestone-Other	5	0.21
Eroded Limestone	23	0.96
Furrs Cord Marked	76	3.16
Saltillo Fabric Marked	231	9.62
Residual Sand Plain	119	4.95
Sand-Other	4	0.17
Eroded Sand	1,573	65.49
Alexander Incised	38	1.58
Alexander Pinched	57	2.37
Alexander Incised/Pinched	2	0.08
Alexander Incised/Punctated	3	0.12
Columbus Punctated	19	0.79
Wheeler Plain	43	1.79
Wheeler Dentate Stamped	17	0.71
Wheeler Punctated	22	0.92
Eroded Fiber	160	6.66
TOTAL	2,402	100.0%

Table 10.2. Site 22IT621, Block A: Horizontal Distribution by Ceramic Class (in percentages).

Level	(N)	MISS Shell	LTWD Grog	LTWD/ MDWD Bone	MDWD Lime/ Sand Diag	MDWD/ LTGF Sand Non/ Diag	MDGF Sand Diag	MDGF Fiber	Total
1.1	(14)	0	0	0	14.29	71.43	14.29	0	100
1.2	(228)	0	0	0	8.33	83.33	1.32	7.02	100
1.3	(800)	0.25	0.13	0	18.50	71.25	4.00	5.88	100
2	(764)	0	0.13	0	14.14	71.99	5.89	7.85	100
3	(421)	0	0.24	0	11.16	61.99	8.08	18.53	100
4	(137)	0	0.73	0	8.03	62.77	2.19	26.28	100
5	(23)	0	4.35	0	8.70	73.91	0	13.04	100
6	(9)	0	0	0	0	88.89	0	11.11	100
7	(2)	0	0	0	50.00	50.00	0	0	100
8	(3)	0	0	0	0	66.67	0	33.33	100
9	(1)	0	0	0	0	0	0	0	100
All	(2402)	0.08	0.21	0	14.07	70.61	4.95	10.07	100

MISS = Mississippian
LTWD = Late Woodland
LTWD/MDWD = Late Woodland/Early Woodland
MDWD = Middle Woodland
MDWD/LTGF = Middle Woodland/Late Gulf Formational
MDGF = Middle Gulf Formational

Lime/Sand Diag = Limestone and Sandstone Diagnostic

Table 10.3. Site 22IT621, Block A: Vertical Distribution by Ceramic Class (in percentages).

Level (N)	MISS Shell (2)	LTWD Grog (5)	LTWD/ MDWD Bone (0)	MDWD Lime/ Sand Diag (338)	MDWD/ LTGF Sand Non/ Diag (1696)	MDGF Sand Diag (119)	MDGF Fiber (242)	All (2402)
1.1	0	0	0	0.59	0.59	1.68	0	0.58
1.2	0	0	0	5.62	11.20	2.52	6.61	9.50
1.3	100.0	20.00	0	43.79	33.61	26.89	19.42	33.31
2	0	20.00	0	31.95	32.43	37.82	24.79	31.81
3	0	20.00	0	13.90	15.39	28.57	32.23	17.53
4	0	20.00	0	3.25	5.07	2.52	14.88	5.70
5	0	20.00	0	0.59	1.00	0	1.24	0.96
6	0	0	0	0	0.47	0	0.41	0.37
7	0	0	0	0.30	0.06	0	0	0.08
8	0	0	0	0	0.12	0	0.41	0.12
9	0	0	0	0	0.06	0	0	0.04
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

MISS = Mississippian
LTWD = Late Woodland
LTWD/MDWD = Late Woodland/Early Woodland
MDWD = Middle Woodland
MDWD/LTGF = Middle Woodland/Late Gulf Formational
MDGF = Middle Gulf Formational

Lime/Sand Diag = Limestone and Sandstone Diagnostic

Table 10.4. Site 22IT621, Block B: Summary of Ceramic Types.

TYPE	NUMBER	PERCENT
Shell/Grog	1	0.03
Baytown Plain	4	0.11
Cormorant Cord Impressed	16	0.46
Grog-Other	3	0.09
Eroded Grog	5	0.14
Turkey Paw Plain	2	0.06
Mulberry Creek Plain	16	0.46
Longbranch Fabric Marked	15	0.43
Pickwick Complicated Stamped	2	0.06
Limestone-Other	4	0.11
Eroded Limestone	64	1.82
Furrs Cord Marked	82	2.33
Saltillo Fabric Marked	253	7.20
Residual Sand Plain	289	8.22
Sand-Other	7	0.20
Eroded Sand	1,766	50.26
Alexander Incised	103	2.93
Alexander Pinched	166	4.72
Alexander Incised/Pinched	8	0.23
Alexander Incised/Punctated	11	0.31
Columbus Punctated	21	0.60
Wheeler Plain	159	4.52
Wheeler Dentate Stamped	49	1.39
Wheeler Punctated	94	2.68
Fiber-Other	2	0.06
Eroded Fiber	372	10.59
TOTAL	3,514	100.0%

Table 10.5. Site 22IT621: Horizontal Distribution by Ceramic Class (in percentages).

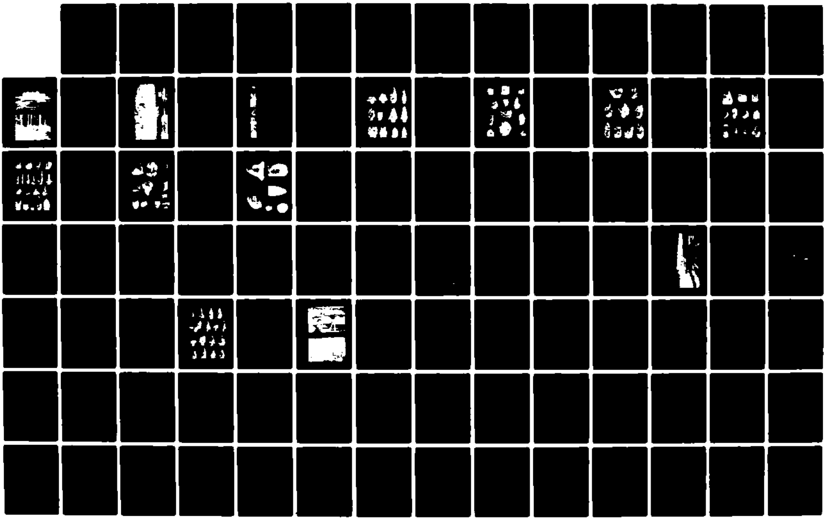
Level (N)	MISS Shell	LTWD Grog	LTWD/ MDWD Bone	MDWD Lime/ Sand Diag	MDWD/ LTGF Sand Non/ Diag	MDGF Sand Diag	MDGF Fiber	Total
1.1 (77)	0	2.60	1.30	5.19	66.23	6.49	18.18	100
1.2 (270)	0	1.48	0	9.63	67.04	4.07	17.78	100
1.3 (887)	0	0.56	0.11	11.94	64.83	7.78	14.80	100
2 (982)	0	0.41	0	15.99	59.57	9.57	14.46	100
3 (661)	0	1.06	0	11.95	49.02	11.50	26.48	100
4 (319)	0.31	0.94	0	7.52	51.72	8.46	31.03	100
5 (209)	0	0.48	0	9.57	59.81	8.61	21.53	100
6 (109)	0	1.83	0	19.27	51.38	8.26	19.27	100
All(3514)	0.03	0.80	0.60	12.41	58.68	8.79	19.24	100

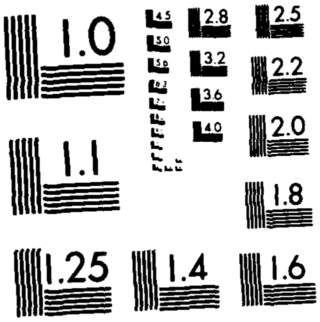
MISS = Mississippian
LTWD = Late Woodland
LTWD/MDWD = Late Woodland/Early Woodland
MDWD = Middle Woodland
MDWD/LTGF = Middle Woodland/Late Gulf Formational
MDGF = Middle Gulf Formational

Lime/Sand Diag = Limestone and Sandstone Diagnostic

AD-A126 692 ARCHAEOLOGICAL INVESTIGATIONS IN THE UPPER TOMBIGBEE VALLEY MISSISSIPPI:..(U) UNIVERSITY OF WEST FLORIDA PENSACOLA OFFICE OF CULTURAL AND A.. J A BENSE ET AL. 2/4

UNCLASSIFIED 1983 DACW01-80-C-0063 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Table 10.6. Site 22IT621, Block B: Vertical Distribution by Ceramic Class (in percentages).

Level (N)	MISS Shell (1)	LTWD Grog (28)	LTWD/ MDWD Bone (2)	MDWD Lime/ Sand Diag (436)	MDWD/ LTGF Sand Non/ Diag (2062)	MDGF Sand Diag (309)	MDGF Fiber (676)	All (3514)
1.1	0	7.14	50.00	0.92	2.47	1.62	2.07	2.19
1.2	0	14.29	0	5.96	8.78	3.56	7.10	7.68
1.3	0	17.86	50.00	24.08	27.88	22.33	19.53	25.24
2	0	14.29	0	36.01	28.37	30.42	21.01	27.95
3	0	25.00	0	18.12	15.71	24.60	25.89	18.81
4	100.0	10.71	0	5.50	8.00	8.74	14.64	9.08
5	0	3.57	0	4.59	6.06	5.83	6.66	5.95
6	0	7.14	0	4.82	2.72	2.91	3.11	3.10
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

MISS = Mississippian
LTWD = Late Woodland
LTWD/MDWD = Late Woodland/Early Woodland
MDWD = Middle Woodland
MDWD/LTGF = Middle Woodland/Late Gulf Formational
MDGF = Middle Gulf Formational

Lime/Sand Diag = Limestone and Sandstone Diagnostic

Table 10.7. Site 22IT621, Block A: Nonutilized Debitage by Size and Raw Material.

Type	1-Inch		.5-Inch		.25-Inch			
	N	%	N	%	N	%	N	%
Bangor, Blue-Green					2	0.01		
Bangor, Fossil.					12	0.09		
Camden, Ht.	14	24.14	1,754	71.65	10,463	75.85		
Camden, Unht.	22	37.93	465	19.00	2,149	15.58		
Conglomerate	9	15.52	69	2.82	172	1.25		
Ft. Payne			38	1.55	416	3.02		
Ft. Payne, Fossil.	2	3.45			13	0.09		
Hematite			1	0.04	1	0.01		
Limonite	1	1.72						
Novaculite					5	0.04		
Pickwick			15	0.61	13	0.09		
Quartz					2	0.01		
Quartzite			2	0.08	11	0.08		
Quartzite, Talht.					5	0.04		
Sandstone	3	5.17	8	0.33	27	0.20		
Sandstone, Ferr.	6	10.34	45	1.84	123	0.89		
Siltstone					1	0.01		
Tusca., Ht.			2	0.08	34	0.25		
Tusca., Unht.	1	1.72	6	0.25	35	0.25		
Unidentified			43	1.76	310	2.25		
Total	58	100.0%	2,448	100.0%	13,794	100.0%		

Table 10.8. Site 22IT621, Block A: Distribution of 0.25-inch Debitage by Material Types.

LEVEL	BANGOR, BLUE-GREEN	BANGOR, FOSL.	CAMDEN, HT	CAMDEN, UNHT	FT. PAYNE	FT. PAYNE, FOSL.	NOVACULITE	PICKWICK	TUSCALOOSA, HT	TUSCALOOSA, UNHT	CONGLOMERATE	HEMATITE	QUARTZ	QUARTZITE	TALLAHATTA QUARTZITE	SANDSTONE	FERR. SANDSTONE	SILTSTONE	UNIDENT.	LEVEL TOTALS %	LEVEL TOTALS N
1.1			81.33	8.0	2.67	1.33			1.33	1.33									4.0	0.54	75
1.2			89.74	3.03	2.89			0.14	0.87	0.29					0.14		0.14		2.75	5.02	692
1.3		0.05	80.76	10.69	4.63	0.15	0.05	0.20	0.46	0.20	0.15		0.05	0.05	0.05	0.15	0.71		1.63	14.25	1,965
2	0.08	0.16	75.09	17.68	2.99	0.08		0.04	0.08	0.12	0.47		0.12		0.04	0.04	1.75		1.28	18.65	2,573
3		0.29	80.82	9.30	5.20	0.05	0.10	0.10	0.29	0.24	0.67				0.05		0.67		2.22	15.04	2,075
4			79.60	11.05	3.90	0.13	0.13	0.06	0.26	0.45	0.19			0.13	.06		0.52		3.51	11.16	1,539
5			77.72	13.79	2.12	0.13			0.13		1.13			0.27		0.66	1.06		2.97	5.47	754
6		0.21	71.07	15.30	4.19	0.42			0.42	0.84	2.94	0.21		0.21			2.73		1.47	3.46	477
7			62.85	25.14	2.22	0.18				0.37	3.70					1.11	1.29	0.18	2.96	3.91	541
8			65.65	23.00	0.91			0.20	0.30	0.51	5.67					1.01	0.61		2.29	7.16	987
9			60.73	30.00				0.24			7.07		0.24			0.24	0.73		0.73	2.97	410
10			72.20	22.43							1.87					0.23	0.70		2.57	3.10	428
11			66.67	26.12						0.40	0.78						0.19		5.84	3.72	513
12			60.55	38.90															0.55	2.65	365
13			50.00	5.29	0.59									1.18					2.94	1.23	170
14			76.98	21.43															1.59	0.91	126
15			77.01	18.39				1.15											3.45	0.63	87
16			52.94	41.18															5.88	0.12	17
TYPE TOTALS																					
N	2	12	10,463	2,149	416	13	5	13	34	35	172	1	2	11	5	27	123	1	310		13,794
%	0.01	0.09	75.85	15.58	3.02	0.09	0.04	0.09	0.25	0.25	1.25	0.01	0.01	0.08	0.04	0.20	0.89	0.01	2.25	100.06	

Table 10.9. Site 22IT621, Block B: Nonutilized Debitage by Size and Raw Material.

Type	1-Inch		.5-Inch		.25-Inch		Prismatic Blades	
	N	%	N	%	N	%	N	%
Bangor, Blue-Green			2	0.09	4	0.02		
Bangor, Fossil.					8	0.04		
Camden, Ht.	75	75.76	1,761	75.68	16,082	80.68	3	37.50
Camden, Unht.	12	12.12	363	15.60	2,365	11.86	5	62.50
Conglomerate	1	1.01	10	0.43	61	0.31		
Ft. Payne	1	1.01	45	1.93	512	2.57		
Ft. Payne, Fossil.			9	0.39	14	0.07		
Hematite			1	0.04	8	0.04		
Novaculite					1	0.01		
Petrified Wood					1	0.01		
Pickwick			3	0.13	16	0.08		
Quartz					1	0.01		
Quartzite	1	1.01	3	0.13	12	0.06		
Quartzite, Talht.					13	0.07		
Sandstone			3	0.13	9	0.05		
Sandstone, Ferr.	6	6.06	51	2.19	192	0.96		
Siltstone					3	0.02		
Tusca., Ht.			2	0.09	52	0.26		
Tusca., Unht.			9	0.39	48	0.24		
Unidentified	3	3.03	65	2.79	531	2.66		
Total	99	100.0%	2,327	100.0%	19,933	100.0%	8	100.0%

Table 10.10. Site 22T621, Block B: Distribution of 0.25-inch Debitage by Material Types.

LEVEL	BANGOR, BLUE-GREEN	BANGOR, FOSL.	CAMDEN, HT	CAMDEN, UNHT	FT. PAYNE	FT. PAYNE, FOSL.	NOVACULITE	PICKWICK	TUSCALOOSA, HT	TUSCALOOSA, UNHT	CONGLOMERATE	HEMATITE	PETRIFIED WOOD	QUARTZ	QUARTZITE	TALLAHATTA QUARTZITE	SANDSTONE	FERR. SANDSTONE	SILTSTONE	UNIDENT.	LEVEL TOTALS %	LEVEL TOTALS N
1.1			77.40	11.99	5.14				0.34	0.34										4.79	1.46	292
1.2			83.10	10.55	2.56	0.16			0.25	0.16	0.41					0.08		0.74	0.08	1.90	6.09	1,213
1.3		0.05	82.03	12.26	2.38	0.02		0.05	0.10	0.10	0.24				0.05	0.05		0.63		2.05	20.83	4,152
2	0.06	0.04	74.21	18.94	2.21	0.10		0.06	0.48	0.23	0.17	0.10				0.08	0.02	0.75	0.02	2.52	24.24	4,832
3		0.09	83.66	7.73	2.64	0.06		0.29	0.12	0.46	0.23	0.03		0.03	0.12	0.14	0.09	0.90		3.42	17.32	3,452
4			85.10	8.62	1.02	0.13	0.03	0.03		0.17	0.40				0.13	0.03		1.29	0.03	3.01	15.19	3,027
5	0.06	0.06	74.54	10.75	7.35				0.85	0.55	0.55	0.12	0.06		0.12		0.18	2.25		2.55	8.26	1,646
6			88.32	5.53	1.29				0.23		0.68						0.15	1.06		2.73	6.62	1,319
TYPE TOTALS																						
n	4	8	16,082	2,365	512	14	1	16	52	48	61	8	1	1	12	13	9	192	3	531		19,933
%	0.02	0.04	80.68	11.86	2.57	0.07	0.01	0.08	0.26	0.24	0.31	0.04	0.01	0.01	0.06	0.07	0.05	0.96	0.02	2.66	100.0%	

Table 10.11. Site 22IT621, Block A: Introduced Rock by Level and Raw Material Types.

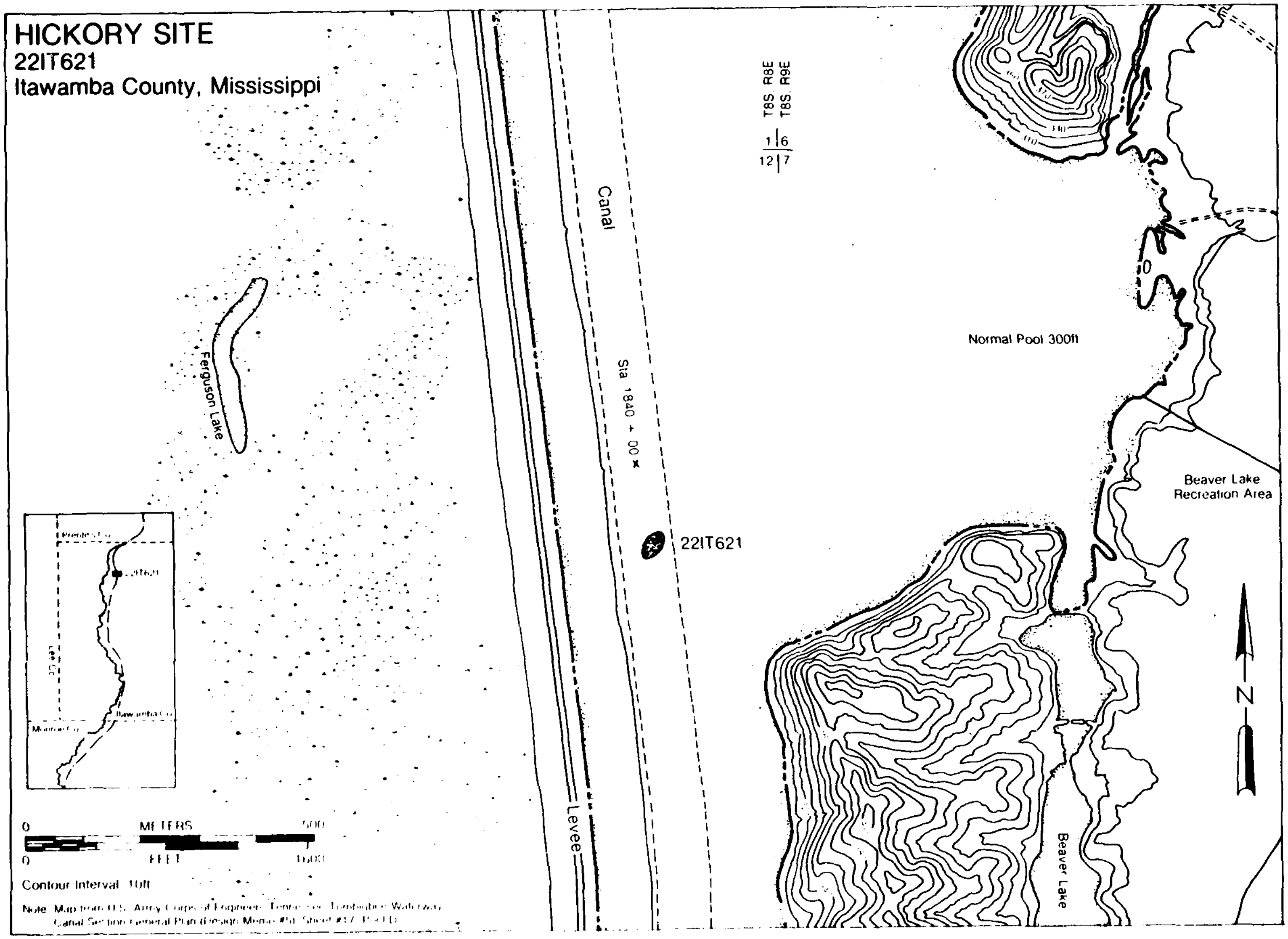
LEVEL	CHALK	FC CHERT/ CHUNK	COBBLE/ PEBBLE	CONGLOMERATE	HEMATITE	LIMESTONE	LIMONITE	OCHRE	PETRIFIED WOOD	QUARTZITE	TALLAHATTA QUARTZITE	SANDSTONE	FERR. SANDSTONE	SANDSTONE CONCREAT.	SILTSTONE	LEVEL TOTALS %	LEVEL TOTALS N
1.1		2.75	0.78	16.47							0.39	3.90	75.69			0.38	255
1.2		4.25	2.38	4.81	0.73		0.28		1.09		0.20	5.09	81.19			5.26	3,578
1.3		4.77	1.17	1.56	1.22		1.34		0.35			7.77	81.90		0.01	15.38	10,455
2		4.29	1.17	0.43	0.60		0.12	0.01	0.64			7.25	85.48	0.01		22.13	15,042
3	0.01	5.38	2.14	0.24	0.25		0.08		0.75			9.22	81.12	0.81		15.70	10,673
4		5.97	4.31	2.49	1.81		1.08		2.29		0.45	9.70	71.93			8.88	6,034
5		4.91	5.62	1.74	0.53		0.10	0.02	2.07		0.02	7.20	77.78			7.25	4,929
6		5.56	7.80	1.18	0.17		0.34		0.10			10.44	74.40			5.98	4,063
7		7.12	4.21	0.63	0.15		0.18		0.11	0.02		6.42	81.17			8.00	5,438
8		3.73	2.88	3.48	0.21		0.08	0.08	0.98		2.62	13.60	72.33			7.06	4,795
9		4.86	3.34	2.32	2.10		0.44		0.07			9.64	77.23			2.03	1,379
10		0.50	6.27	8.52	1.00	4.01	0.75		0.25			0.50	78.20			0.59	399
11		4.94	4.94									4.32	85.80			0.24	162
12		18.39	3.45	2.30	4.60							1.15	70.11			0.13	87
13		7.30	0.20						0.61			1.42	90.47			0.73	493
14		37.58	0.67						0.67			0.67	60.40			0.22	149
15		37.50	3.13										59.38			0.05	32
16																	0
TYPE TOTALS																	
N	1	3,469	1,919	1,020	468	16	274	7	555	1	162	5,591	54,388	88	1		67,963
%	.001	5.10	2.82	1.50	0.69	0.02	0.40	0.01	0.82	.001	0.24	8.23	80.03	0.13	.001	100.0%	

Table 10.12. Site 221t621, Block B: Introduced Rock by Level and Raw Material Types.

LEVEL	CHALK	FC CHERT/ CHUNK	COBBLE/ PEBBLE	CONGLOMERATE	HEMATITE	LIMONITE	OCHRE	PETRIFIED WOOD	QUARTZITE	SANDSTONE	FERR. SANDSTONE	SANDSTONE CONCREAT.	LEVEL TOTALS %	LEVEL TOTALS n
1.1		6.57	0.47		0.94						82.02		1.10	639
1.2		1.35	2.20	1.18	1.98	0.39		2.29	0.94	3.77	85.90		6.26	3,630
1.3		5.61	2.21	0.99	0.39	0.41		0.92		5.40	84.06		15.88	9,2[illegible]5
2		5.52	1.93	1.20	0.63	0.12	0.04	4.72	0.65	6.33	78.86		20.52	11,904
3		4.96	3.73	0.71	0.79	0.53		1.02		5.31	82.96		15.06	8,737
4	0.01	4.39	3.13	2.07	0.70	0.21		0.13	0.07	8.38	80.29	0.62	16.80	9,745
5		3.24	6.54	5.1[illegible]	0.35	0.13	0.01	0.19	0.12	12.57	71.71		11.97	6,945
6	0.01	2.73	6.77	1.21	0.42	0.25		0.37	0.07	4.19	83.97		12.42	7,20[illegible]
TYPE TOTALS														
N	2	2,548	2,090	986	389	159	6	872	131	3,845	46,942	60		58,021
%	<0.01	4.39	3.60	1.70	0.66	0.27	0.01	1.50	0.23	6.63	80.91	0.10	100.0%	

Figure 10.1

Site 22IT621: Waterway location map



HICKORY SITE
22IT621
Itawamba County, Mississippi
Ferguson Lake
Canal
Levee
Sta 1840 + 00
22IT621
T8S R8E
T8S R9E
1 6
12 7
Normal Pool 300ft
Beaver Lake
Recreation Area
Beaver Lake
N
METERS
0
500
FEET
0
1000
Contour Interval 10ft

Figure 10.2

Site 22IT621: Topographic map and excavation plan

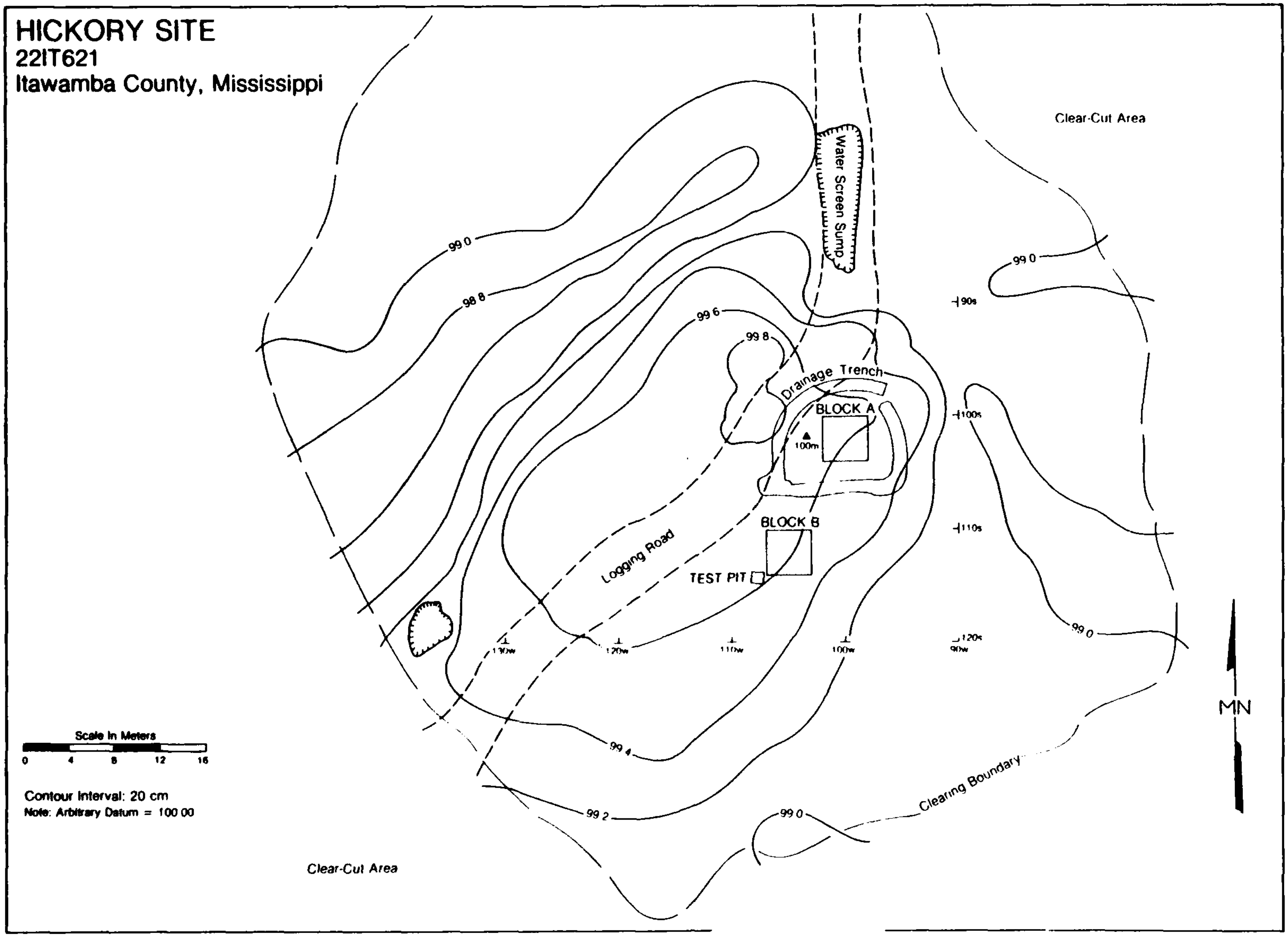

HICKORY SITE
22IT621
Itawamba County, Mississippi
Clear-Cut Area
Water Screen Sump
99 0
98 8
99 6
99 8
Drainage Trench
BLOCK A
100m
BLOCK B
TEST PIT
Logging Road
99 4
99 2
Clearing Boundary
90s
100s
110s
120s
130w
120w
110w
100w
90w
MN
Scale In Meters
0
4
8
12
16
Contour Interval: 20 cm
Note: Arbitrary Datum = 100 00
Clear-Cut Area

Figure 10.3

Site 22IT621: View of the site during testing looking north

Figure 10.4

Site 22IT621: General excavations, Block A in foreground and Block B in background, looking south

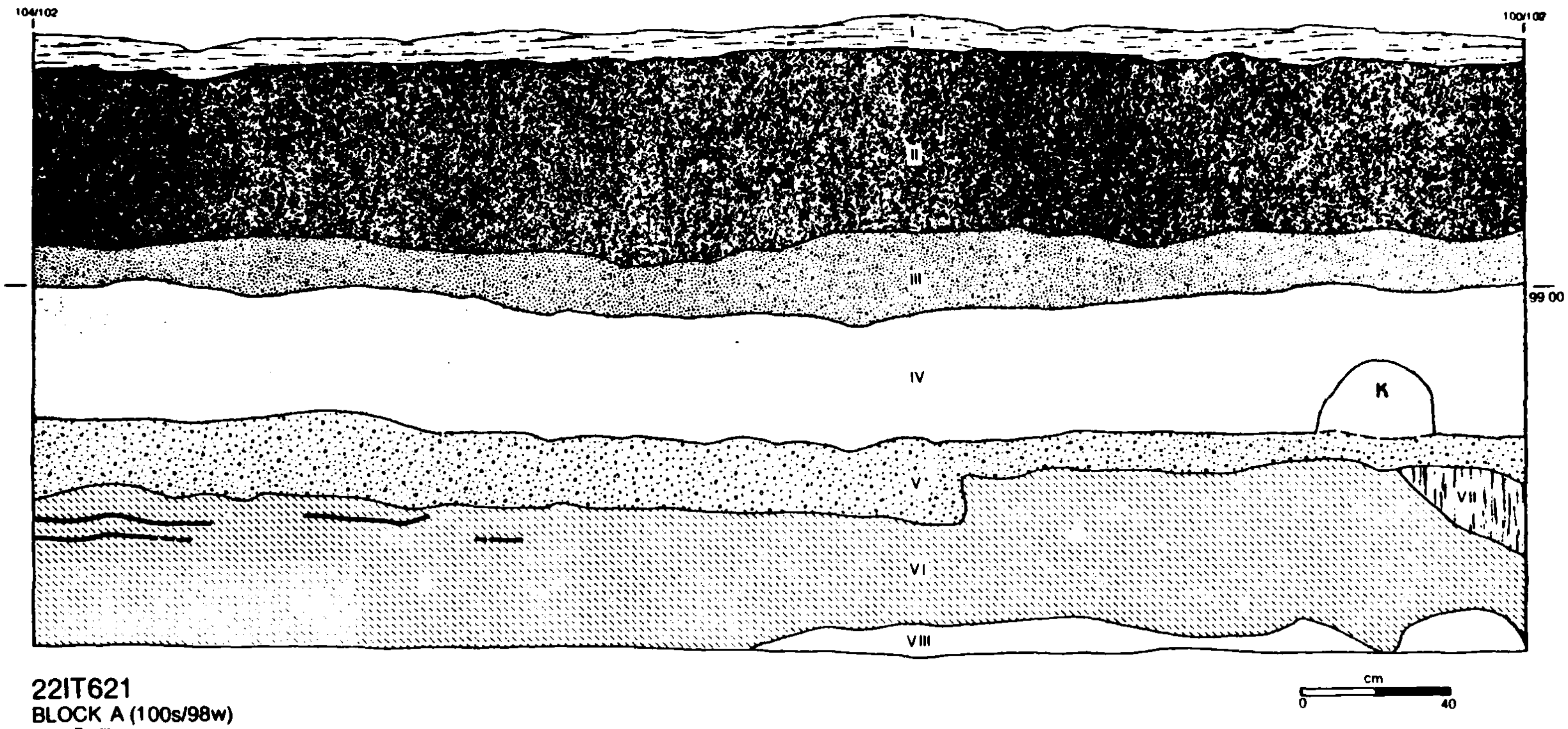
Figure 10.5

Site 22IT621: Profile of the west wall of Block A


22ITGM
BLOCK A
WEST PROFILE
PROGRESS
02 OCT 80

Figure 10.6

Site 22IT621: Stratigraphy of west wall of Block A



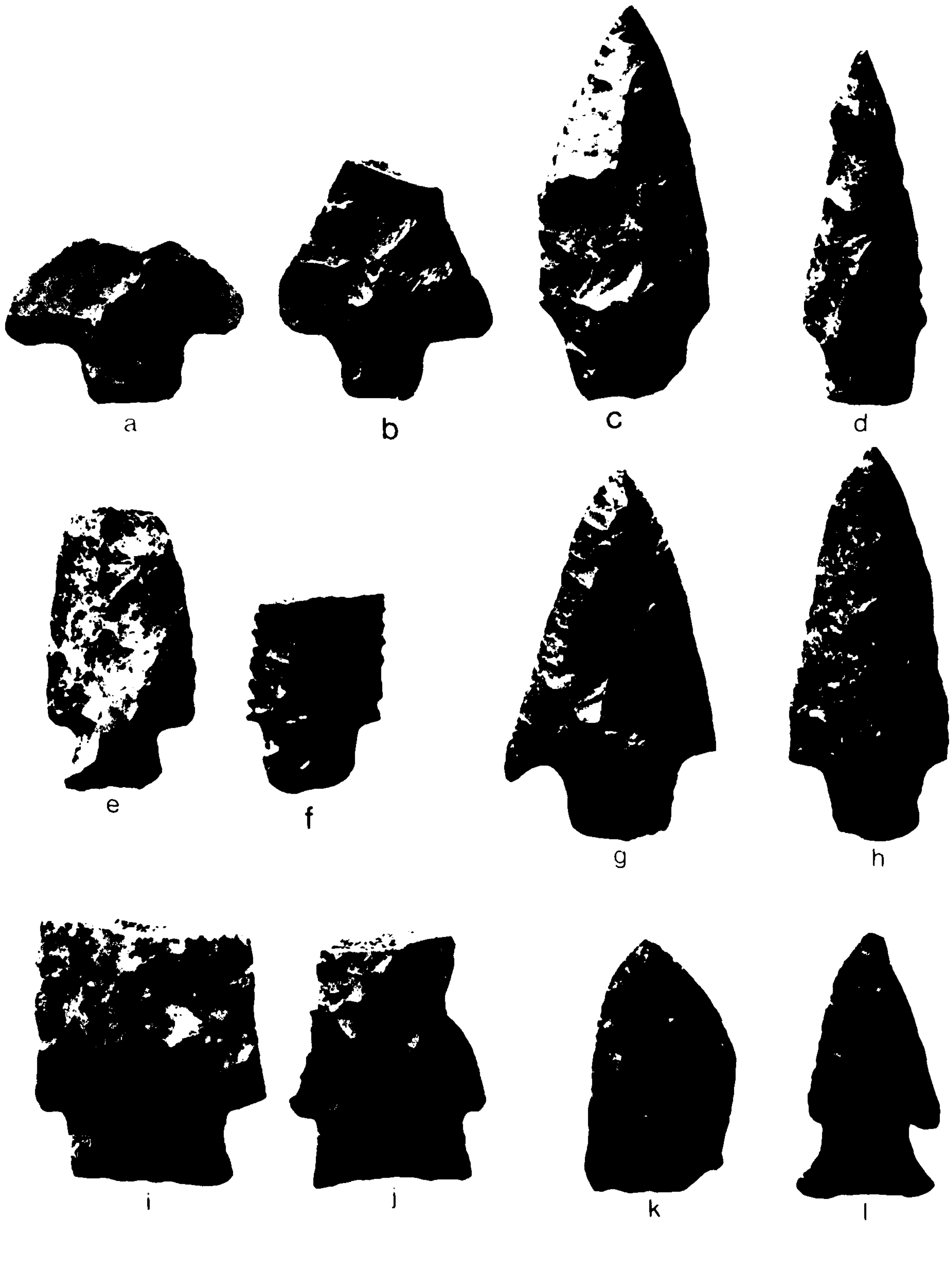
22IT621
BLOCK A (100s/98w)
West Profile

I. Dark reddish brown (5YR 2.5/2) loam.
II. Dark reddish brown (5YR 2.5/2 - 5YR 3/2) loam.
III. Very dark gray (10YR 3/2) cemented sand mottled with light brownish gray (10YR 6/2) and black (10YR 2/1).
IV. Very dark gray (10YR 3/2) sand mottled with light brownish gray (10YR 6/2) and black (10YR 2/1).
V. Strong brown (7.5YR 4/6) sand mottled with light gray (5YR 6/1).
VI. Light gray (10YR 7/2) to light brownish gray (10YR 6/2) sand.
VII. Light gray (10YR 7/2) sand mottled with yellowish red (10YR 4/6) and black (10YR 2/1).
VIII. Yellowish red (5YR 4/6) sand mottled with light brownish gray (10YR 6/2) and black (10YR 2/1).
K Krotovina

Figure 10.7

Site 22IT621: Hafted Bifaces

a. Cotaco Creek (122-251)
b. Elora (161-189)
c. Gary (184-1)
d. Little Bear Creek (204-171)
e. Flint Creek (161-191)
f. Flint Creek (172-166)
g. Ledbetter/Pickwick (142-164)
h. Little Bear Creek (149-303)
i. Benton Short Stem (241-1)
j. Benton Short Stem (266-2)
k. Morrow Mountain (227-1)
l. Kirk (133-221)



a b c d e f g h i j k l

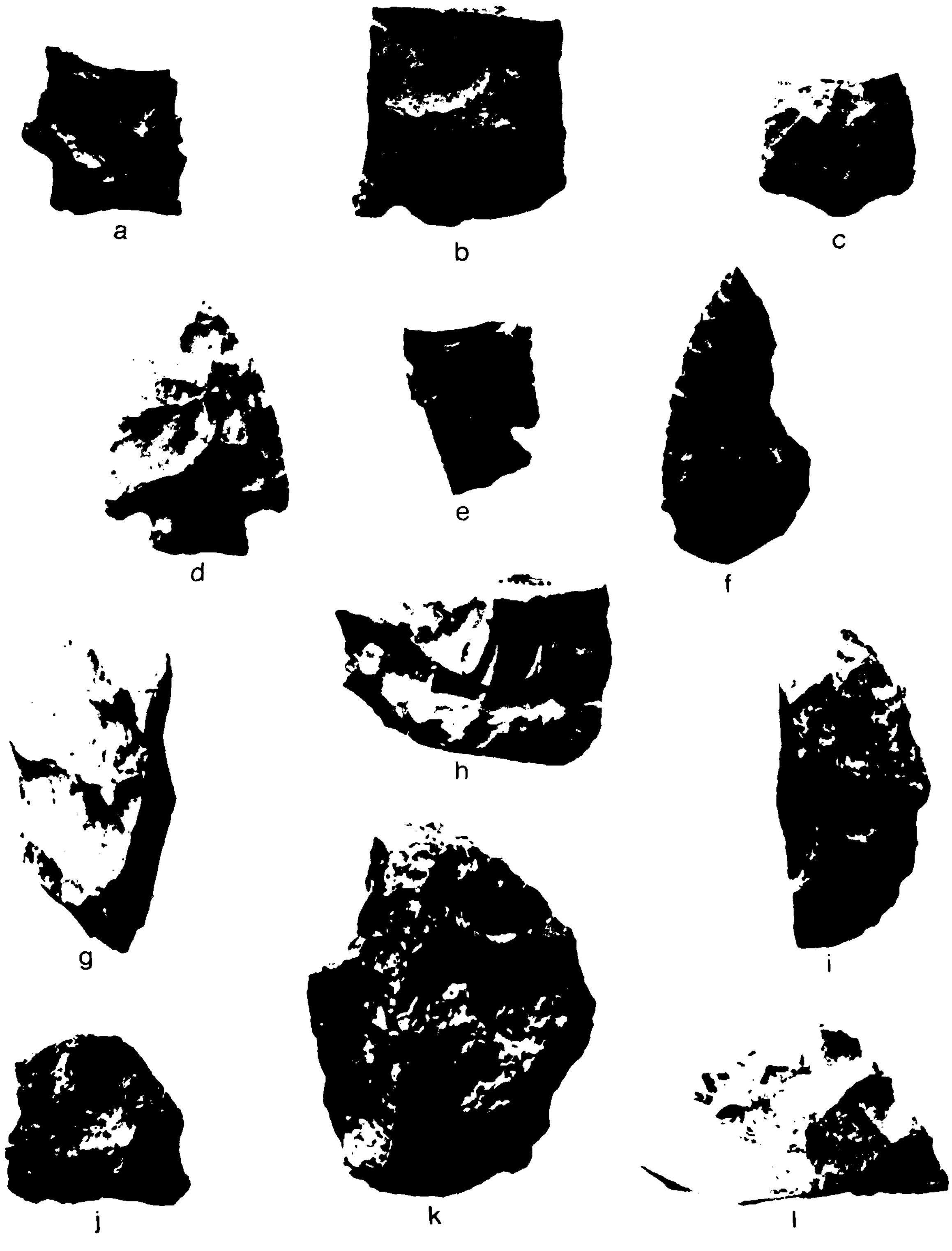
Figure 10.8

Site 22IT621: Hafted Bifaces, Cores, and Preforms

Hafted Bifaces
- a. Benton Short Stemmed (228-2)
- b. Eva (254-1)
- c. Morrow Mountain (264-2)
- d. Cypress Creek (246-3)
- e. Kirk (282-1)
- f. Residual Stemmed (224-1)

Cores
- g. Core Fragment (305-1)

Preforms
- h. Preform I (342-1)
- i. Preform I (224-8)
- j. Preform I (276-1)
- k. Preform II (239-3)
- l. Preform II (264-5)


a
b
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i
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Figure 10.9

Site 22IT621: Preforms and Bifaces

Preforms
- a. Preform I (218-50)
- b. Preform I (140-77)
- c. Preform II (125-347)
- d. Preform II (214-76)
- e. Preform II (126-250)

Bifaces
- f. Narrow Triangular Biface (170-165)
- g. Triangular Biface on Other (149-34)
- h. Expanding Triangular Biface on Flake (125-345)
- i. Ovoid Biface on a Flake (106-76)

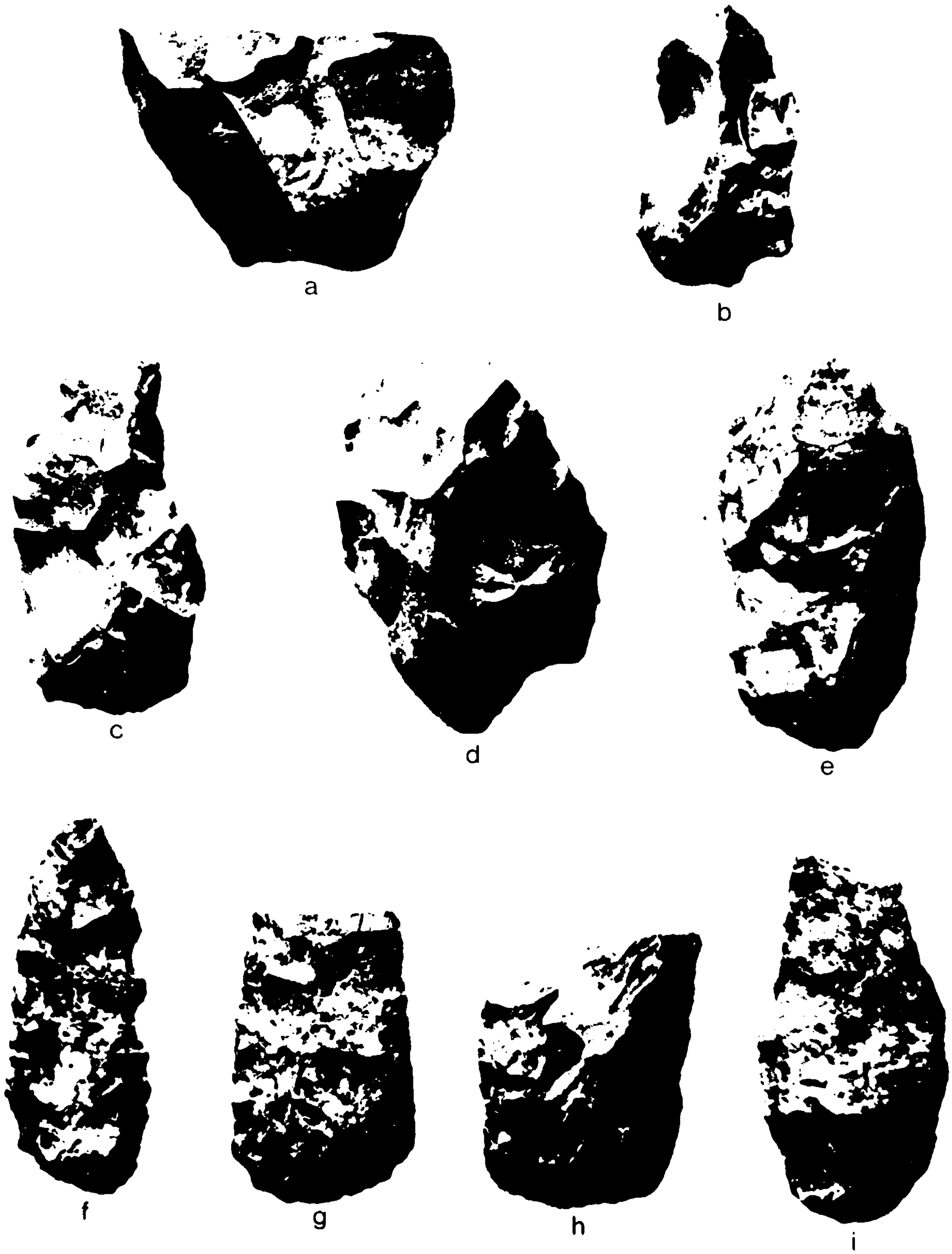
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Figure 10.10

Site 22IT621: Bifaces, Scrapers, Drill, Other Uniface and Biface Tools

Bifaces
- a. Triangular Biface (272-1)
- b. Triangular Biface on Flake (280-1)
- c. Triangular Biface on Other (264-8)

Scrapers
- d. Uniface End Scraper (222-4)
- e. Uniface End Scraper on Expanding Flake (264-310)
- f. Uniface Side/End Scraper on Expanding Flake (246-7)
- g. Uniface Side Scraper on Other Flake (334-2)
- h. Uniface End Scraper ("thumbnail scraper") (254-374)
- i. Uniface Side Scraper ("thumbnail scraper") (264-7)

Drills
- j. Drill Fragment, Distal (224-10)

Other Uniface and Biface Tools
- k. Biface Flake Knife (276-3)
- l. Biface Flake Knife (246-8)

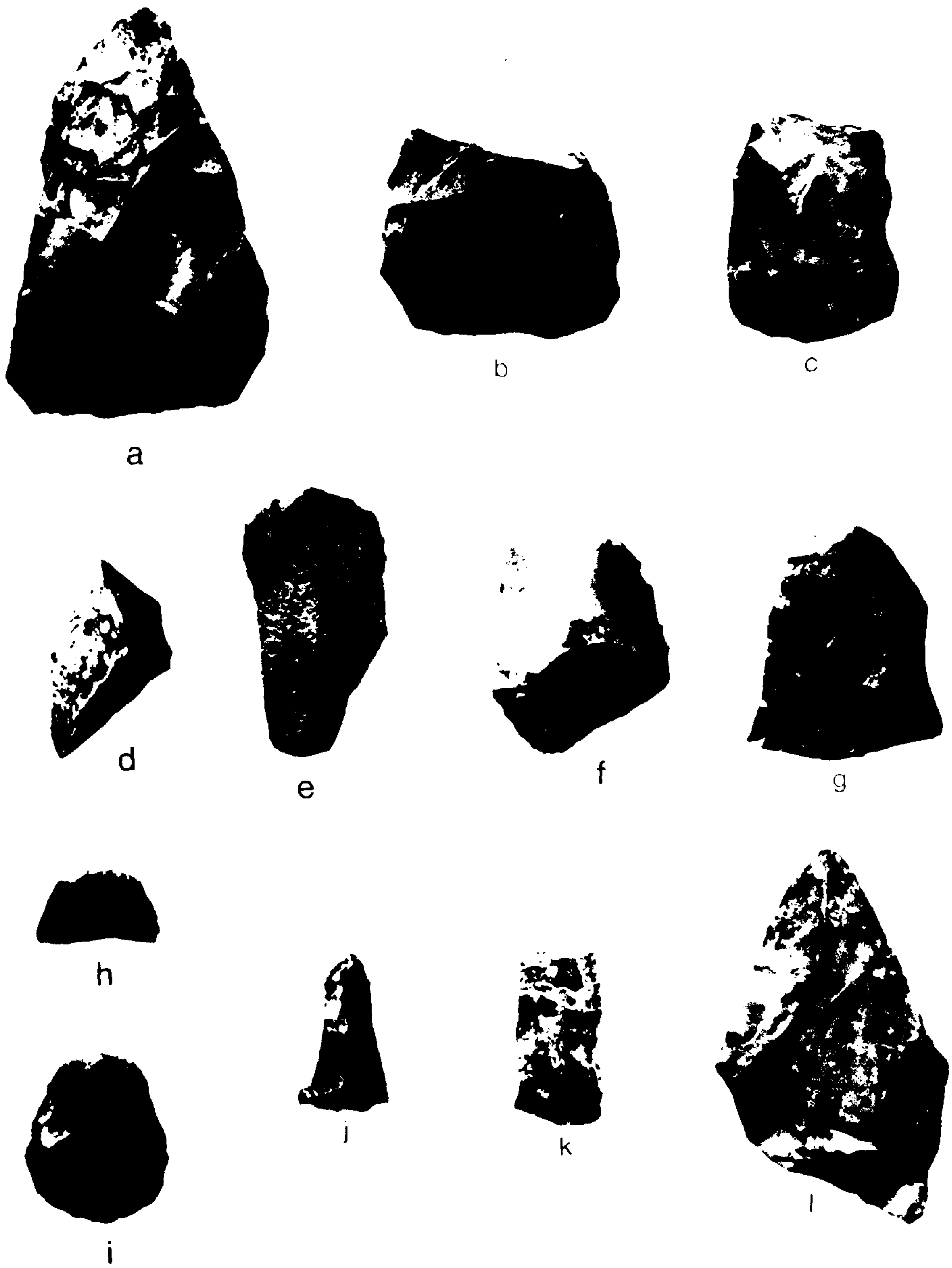
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Figure 10.11

Site 22IT621: Selected Chipped Stone Tools

Scrapers
- a. Uniface Side Scraper (111-346)
- b. Uniface Side Scraper (266-3)
- c. Uniface Side Scraper (187-198)
- d. Uniface Side Scraper (170-171)

Drills, Perforators, Etc.
- e. Shaft Drill (126-25)
- f. Shaft Drill (140-79)
- g. Expanding Base Drill (172-182)
- h. Expanding Base Drill (174-23)
- i. Stemmed Drill (125-79)
- j. Stemmed Drill (238-1)
- k. Graver (100-78)
- l. Perforator (104-117)
- m. Perforator (124-337)
- n. Reamer (172-184)

Other Uniface and Biface Tools
- o. Biface Adze (124-338)
- p. Biface Adze (118-193)
- q. Wedge (144-138)
- r. Biface Flake Knife (151-250)
- s. Biface Flake Knife (161-205)

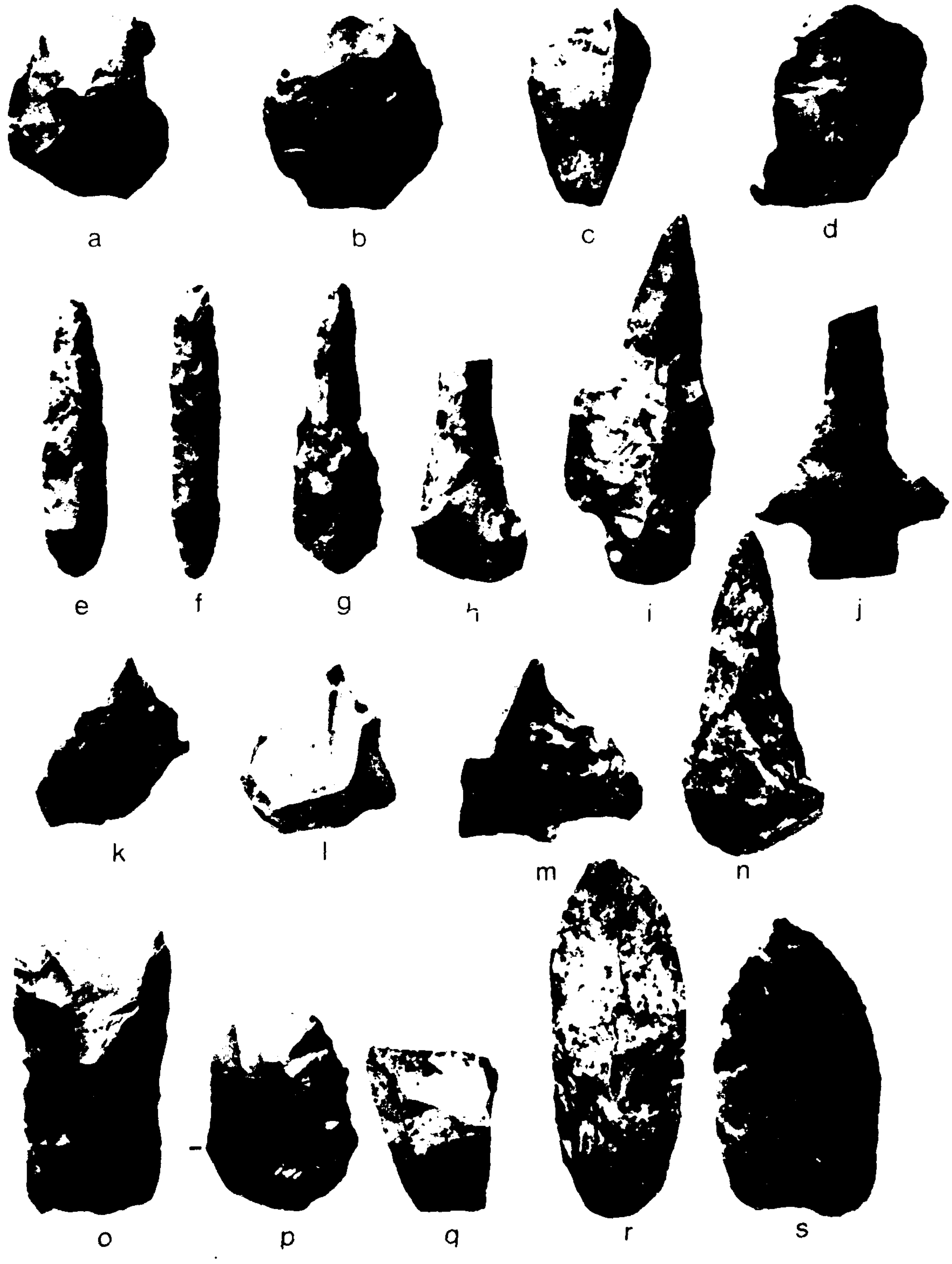
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Figure 10.12

Site 22IT621: Scrapers

a. Uniface Cobble Scraper (3626-1)
b. Uniface Cobble Scraper (2124-1)
c. Scraper on a Core (4435-1)
d. Spokeshave and Biface Side Scraper (3969-1)
e. Spokeshave (3331-2)
f. Spokeshave (1956-7)
g. Spokeshave (1749-9)
h. Biface Scraper (947-161)
i. Scraper on a Biface Blade (1373-1)
j. Biface Scraper on a Flake (948-300)
k. Biface Scraper on a Flake (3491-1)
l. Hafted End Scraper (1426-79)
m. Hafted End Scraper (3719-1)

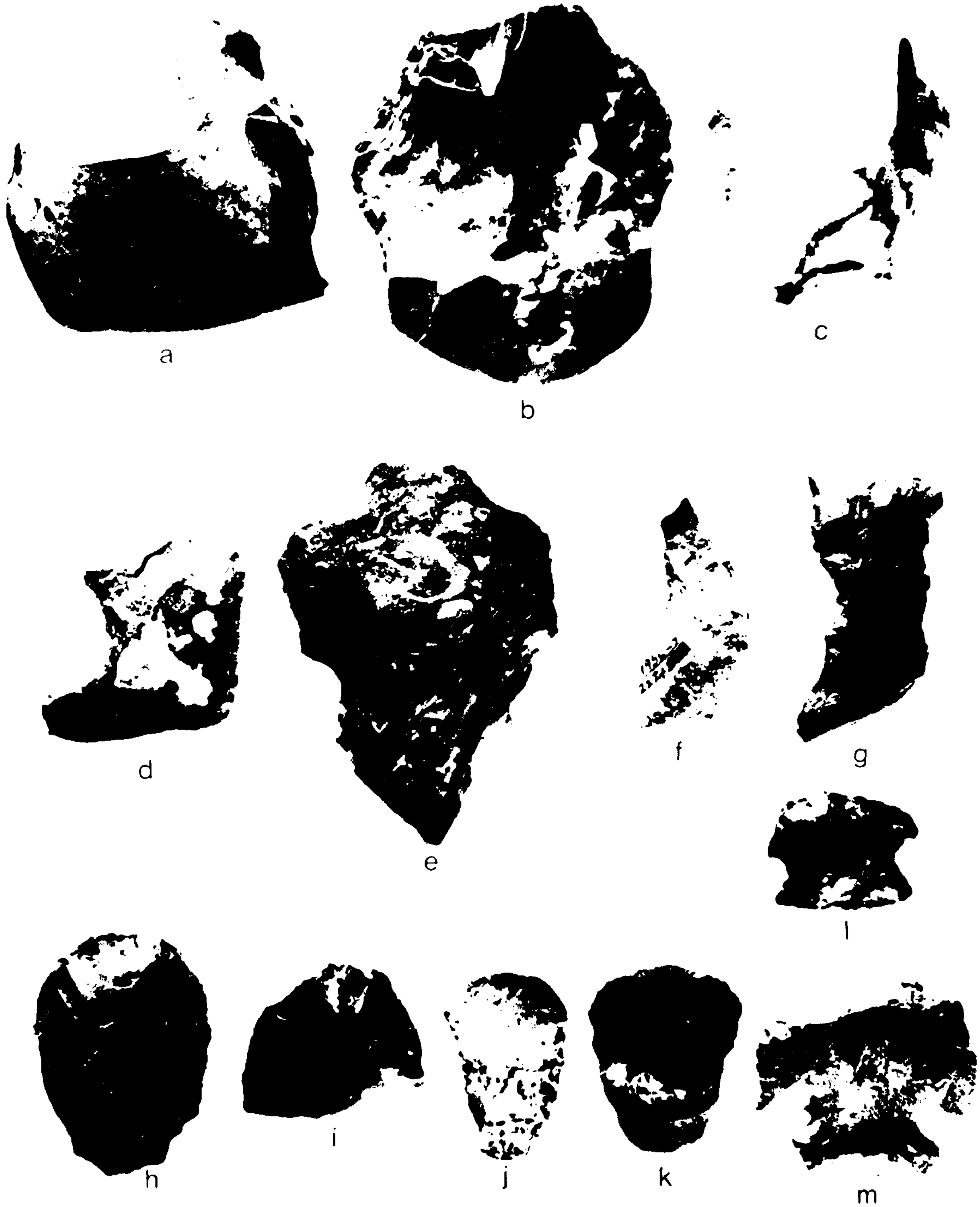
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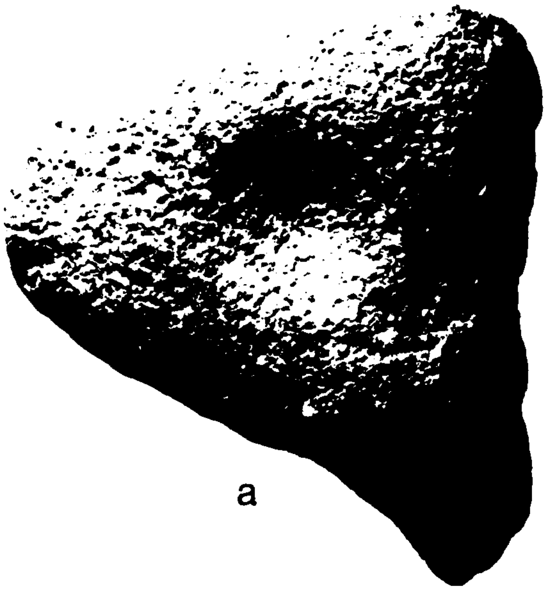
Figure 10.13

Site 22IT621: Selected Ground Stone Tools

a. Pitted Anvilstone (144-140)
b. Muller (99-7)
c. Muller/Pitted Anvilstone (120-160)
d. Gorget (129-1)
e. Bead (186-1)
f. Discoidal (142-193)



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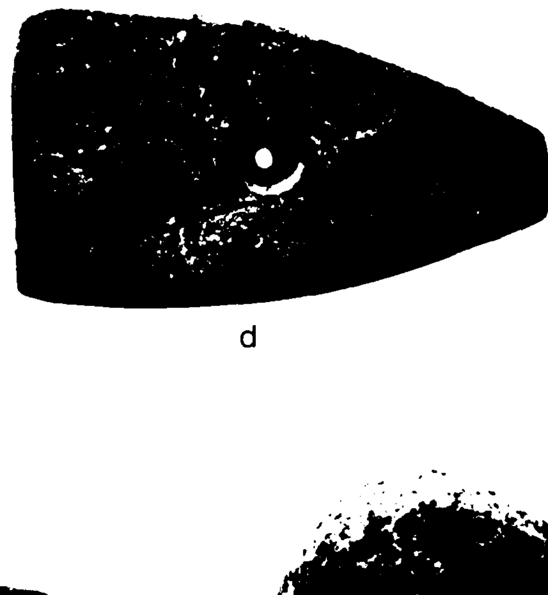

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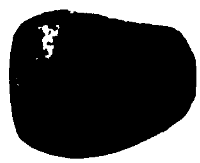

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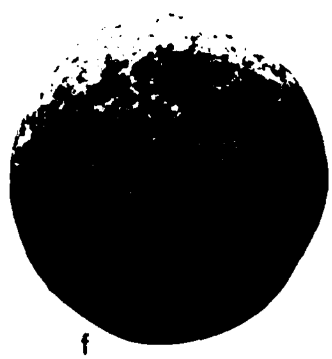

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CHAPTER 11

THE MUD CREEK SITE TEST EXCAVATIONS (22IT622)

INTRODUCTION

The Mud Creek site (22IT622) is a small rise in the Tombigbee River floodplain near Mud Creek and located in northern Itawamba County, Mississippi. Test excavations were carried out in the autumn of 1980. A controlled surface collection sample and a 4 m by 4 m excavation unit were used to evaluate the site's research potential.

SITE PROJECT HISTORY

Site Identification

The Mud Creek site was brought to our attention by a local informant. Two small tests, made to determine if the rise contained more than a surface scatter, indicated buried cultural deposits. Further testing was deemed necessary to determine the cultural history and archaeological integrity of the site.

Fieldwork

Fieldwork lasted for 15 days, from September 22 through October 10, 1980. Rain hampered fieldwork on two occasions. One of the 15 days of fieldwork was lost due to heavy rain.

RESEARCH RATIONAL

To address questions of patterned behavior within a study area such as the Upper Tombigbee Valley, a diversity of data sources is desirable. The integrity of the archaeological deposits and the completeness of the cultural historical record from sites are critical to the determination of their importance to a broad based study. For these reasons, testing activities were performed at the Mud Creek site, as well as other project sites.

SITE DESCRIPTION

LOCATION

The site is located in northern Itawamba County, Mississippi, approximately 11 km north of Fulton, the county seat. The site is approximately 400 m south of the confluence of Mud Creek and the Tombigbee River.

Legal Description

22IT622 is in the NE/SE/NE/NE 1/4 of section 24, Township 8S, Range 8E and can be located on the Fulton, Mississippi Quadrangle (USGS 7.5 minute series). The Universal Transverse Mercator Grid coordinates for the site are Zone 16, Easting 371220, Northing 3804520, and the geographic coordinates are 34°22'34"N, 88°24'06"W.

Tennessee-Tombigbee Waterway Project Setting

Situated within the pool area above Lock D in the Canal Section of the waterway, the site is approximately 425 m east of the canal centerline and 595 m east of the levee top (Figure 11.1). The site is about 1530 m distant and 25° bearing east of north from the upper part of Lock D.

The proposed pool level of the Lock D pool is 91.45 m (300 ft) AMSL, while the site's highest elevation is approximately 88.70 m. The site, therefore, normally will be covered by approximately 2.75 m of water when the waterway is completed.

LOCAL ENVIRONMENT

Physiography

The Mud Creek site is on a small rise near the junction of the Mud Creek floodplain and the Tombigbee River floodplain. To the north and east of the site is a dissected ridge (Figure 11.1), which at one time was contiguous with the upland ridge to the north. Mud Creek presently flows west through the northernmost dissection in the ridge. The Mud Creek floodplain to the east of the site is slightly constricted by the northern ridge and an upland extension that is approximately 360 m northeast of the site. A paved county road crosses the bottoms in this area. East of the constriction the Mud Creek floodplain is Y-shaped with Mud Creek flowing in the eastern arm of the Y. A small tributary stream courses through the northern arm, which contains a larger floodplain. Beaver Lake, a man-made reservoir, is located in this northern drainage. Fred Nials (personal communication 1980) suggested that the Tombigbee River once flowed through the present location of Beaver Lake and through the area of the Mud Creek site. The dissected ridge west of the site, therefore, would have been west of the Tombigbee. The use of this course by the Tombigbee occurred at an unknown time in the past. Investigations at the Mud Creek site give no indication that the Tombigbee flowed nearby during the long existence of the site. The site's location in the middle of the floodplain between the dissected ridge and the extant uplands suggests the river did not flow in this area during the occupation.

The site rises over a meter above the general elevation of the surrounding floodplain and is roughly circular in plan (Figure 11.2). The scatter of artifacts observed on the surface of the site covered an area roughly 85 m by 75 m. The flanks have a 1° to 2° angle of slope (Figure 11.3).

Historic Land Use

The area around and including the site has been cleared and farmed for approximately 50 years. This area has been used recently as pasture and the upper 15 cm to 20 cm has been disturbed by plowing; historical/European occupation is not evident on the site. Potholes were not observed during excavation and several local collectors have stated that they did not know anyone who had dug into the site. Surface collection has possibly occurred because the site has been under cultivation and is known to local collectors. Recent waterway construction has taken place near the site, but, with one exception, no damage has been done. Bulldozer activity destroyed a small area on the northwestern edge. Some bulldozers have been driven over the site, but the plowzone protected the undisturbed strata.

Plant and Animal Communities

The surrounding area of the Mud Creek site presently does not support its natural floral and faunal communities due to historic agricultural practices. In a pristine state the site would be covered with mixed bottomland hardwoods and associated floral and faunal populations of the area. Due to its slightly higher elevation, and therefore better drainage, the site would contain a lower percentage of water-loving trees than the immediately surrounding flood plain. The faunal communities would differ accordingly.

EXCAVATION STRATEGIES

RESEARCH OBJECTIVES

Test excavations at the Mud Creek site were planned to determine the integrity of the archaeological deposits and cultural historical record. Fortuitous surface collected artifacts and two initial 1 m by 1 m excavation units suggested that site occupation during the Woodland stage was minimal. Most of the temporally diagnostic artifacts were identified as Late Archaic projectile point/knives. Further testing was planned to demonstrate the existence of one or more Late Archaic components and to strengthen the sample of the Late Archaic sites in the project area.

The project scope of services calls for controlled surface collecting of tested sites, when possible, in order to provide a representative 20 % sample of the site. This sample should indicate gross horizontal distribution of artifact classes and areas of concentrated artifact deposition.

The data collected during testing and the resulting interpretations should make it possible to determine the nature and extent of aboriginal and historic disturbance on the site. Analysis of the cultural stratigraphy, in combination with the natural stratigraphic profile, should indicate the archaeological integrity of the deposits.

METHODS AND TECHNIQUES

Recovery Procedures

The techniques utilized to recover an artifactual sample from the Mud Creek site were consistant with the procedures outlined in the project Field Procedures Manual (Appendix V). The original 1 m by 1 m units (Blocks A and B) were excavated in 10 cm levels and dry-screened through 0.25 inch hardware cloth. Excavation plans for further testing called for a single 4 m by 4 m block to be excavated in the central, highest portion of the site. Such placement tends to give the best opportunity to locate discrete cultural strata and high numbers of artifacts.

The Mud Creek site was an ideal situation for controlled surface collection because there are no trees, surface disturbances, or other obstacles to interfere with collection. A 20% surface collection was devised. The individual collection units were randomly selected. This collection scheme is discussed in detail in the Field Procedures Manual (Appendix V).

The site supported a thick herbaceous cover when testing operations began. Based on visual inspection of the site's surface in its vegetated state and the slope of the site, a roughly circular area approximately 88 m by 84 m was bush-hogged and disked. The disk turned over approximately 20 cm of earth. About 7 cm of rain fell during the weekend preceding collection. Tracks in the turned earth suggested an unauthorized visitor walked over part of the site before collection, but the effect on the collection was probably minimal.

Approximately 6320 m^2 was originally bush-hogged in preparation for surface collection. A water-screen processing area and sump well disturbed the western part of the site, and some bulldozer activities disturbed the northern edge of the site (Figure 11.4). These disturbed areas covered 690 m^2. The remaining area available for surface collection amounted to 5630 m^2, or three hundred fifty-two 4 m by 4 m units. The selection process outlined in the field manual was used to choose seventy-eight 4 m by 4 m units for collection. This is equivalent to a 22.2% sample.

An error in the laboratory caused 19 of the 78 surface collection units to be mixed. The resulting effective surface collection was a 16.8% sample of the available surface area. The materials collected from the surface were discussed in the section on cultural remains, and presented in Appendix I.

A sump well was dug for water-screening the excavated fill, however, slumping walls and slow ground water recharge made its use impractical. Less than one level of fill from the 4 m by 4 m excavation block was water-screened on the site. More than seven levels of fill were dry-screened through shakers. The four other levels of fill were trucked to Mud Creek where they were wet-screened.

STRATIGRAPHY

SOILS AND SEDIMENTS

The soils in the vicinity of the Mud Creek site are classed as part of the Mantachie series (Soil Survey Staff 1979). This series consists of poorly drained floodplain soils formed in loamy material. Mantachie soils typically have a 0 to 2% slope. The site is characterized by alluvial loam to sandy loam deposits, substantial bioturbation, and sediment colors ranging from dark brown (7.5YR 3/2) to yellow (10YR 7/6). Most stratigraphic boundaries are gradual and wavy. Six identifiable strata were recognized in the Block C excavations (Figure 11.5). All of these strata were above the dry season water table. The excavation of the water-screen sump showed an increase of clay with depth, but slumping of the pit prevented a detailed stratigraphic description.

Five of the six strata are continuous within the Block C. Stratum 6 is an extremely compact sediment which is horizontally discontinuous and lies atop Stratum 5. The following stratigraphic description is of the south wall of Block C (Figure 11.5) between Stratum 6 and Feature 5 at approximately 104S/103W.

Stratum 1

0-15 cm (Plow zone): Loam with weak, fine granular structure. Very friable. Numerous roots. 7.5YR 3/2 dark brown. Wavy, abrupt boundary.

Stratum 2

15-29 cm: Loam with weak, fine granular structure. Very friable. Decrease in roots. Numerous krotovina. 7.5YR 3/2 dark brown mottled with 7.5YR 6/6 reddish yellow and 10YR 7/6 yellow. Wavy, gradual boundary.

Stratum 3

29-50 cm: Loam with weak, fine granular to weak subangular block structure. Friable, slightly firm in place. Common krotovina. 7.5YR 4/4 brown mottled with 7.5YR 6/6 reddish yellow and 10YR 6.6 brownish yellow. Wavy, gradual boundary.

Stratum 4

50-108 cm: Loam with weak, fine subangular blocky to weak, fine granular structure. Friable, slightly firm in place. Occasional krotovina. Predominately 7.5YR 5/6 strong brown. Wavy clear boundary.

Stratum 5

108-120+ cm: Sandy loam with weak fine granular structure. Friable. Sediment firmer or more compact than underlying Stratum 6. 104YR 5/6 strong brown mottled with 10YR 7/6 yellow and 10YR 7/4 very pale brown.

Stratum 6

74-110 cm: Very compact, massive sandy loam. Holds little moisture. 7.5YR 4/6 strong brown mottled with 10YR 6/4 light yellowish brown. Smooth boundary abrupt with Stratum 4 and sharp with Stratum 5.

The stratigraphic descriptions of the Mud Creek site were developed largely from consultation with Dr. David Pettry, the project soils and geomorphology consultant.

GEOMORPHOLOGY

The Mud Creek site was formed by the accretional deposition of overbank deposits. Floods of both the Tombigbee River and Mud Creek contributed alluvium. There is a possible time break around the bottom of Stratum 3 (Pettry, personal communication 1980). The upper three strata have been totally reworked via bioturbation. The modern agricultural use of the site has resulted in a thoroughly mixed plow zone and a deflation of the site.

CULTURAL REMAINS

The artifactual materials recovered from the Mud Creek site are discussed with the excavation units and features from which they were collected. Because there was only one major excavation block, a surface collection, and two cultural features, it is not necessary to discuss further the artifact classes in a separate section.

EXCAVATION UNITS

Surface Collection

A surface collection of 78 representatively distributed 4 m by 4 m squares delineated the probable extent of the site (Figure 11.4). This collection represented a 22.2% sample of the area available for collection. No artifacts were recovered from 22 (28.2%) of the collection units. An error in processing caused 19 (24.4%) of the units to be mixed. The artifacts from the mixed units will not be discussed here. The unmixed units represent a 16.8% sample of the available site area.

Artifacts collected from the controlled unmixed surface collection number 700 (Appendix I). Five are sherds; the remainder are lithics. The mixed collection units were mostly in the southeastern quarter of the site (Figure 11.4). This concentration of mixed units makes interpretation of surface artifact distribution difficult. Units with the highest number of surface artifacts are located generally in the central area of the site. A surprisingly high number of artifacts were collected in the northwestern quarter of the site.

The observed distribution can be interpreted in a number of ways. The central area of the site is the highest (Figure 11.2), and therefore probably thickest, part of the site. Activity and artifactual deposition undoubtedly varied spatially and quantitatively through time. On the average, the central part of such a site would be expected to contain a higher number of artifacts. Natural down-slope movement of sediments, including artifacts, would be expected to occur. Modern plowing would also contribute greatly to deflation of the site and the exposure of artifacts on the surface. The higher concentration of artifacts on the northwestern and eastern flanks could be due to plow movement, downslope movement, or cultural concentration. Further test excavations might indicate the source of the artifacts but the excavations already completed suggested that such elucidation would be unlikely.

Two Late Archaic Little Bear Creek projectile point/knives (Figure 11.6.i) were recovered from two controlled surface collection units in the central part of the site. Eight other temporally diagnostic projectile point/knives were recovered in the general surface collection. One Ledbetter-Pickwick (Late Archaic) (Figure 11.6.e), five little Bear Creek (Late Archaic) (Figure 11.6g-h), and two Kirk Corner-Notched (Early Archaic) projectile point/knives were recovered. The obvious suggestion is that the Late Archaic occupation of the site is well-represented in the surface collection. This might be explained by the nearness of Late Archaic deposits to the surface of the site. A wide range of other tools and artifacts were also recovered in the surface collection.

The five control collected sherds included two fiber, two sand, and one grog, assumed to be Wheeler, Alexander, and Baytown respectively. Two grog tempered sherds, one a Mulberry Creek Cord Marked, were recovered in the general surface collection. The extremely low number of sherds suggests only rare occupation during ceramic times.

The artifacts recovered from the 37 unmixed collection units are presented in tabular form in Appendix I. The column heads on the table correspond to the letter designations adjacent to the units illustrated in Figure 11.4.

Blocks A and B

Blocks A and B are 1 m by 1 m test units (Figure 11.2) excavated to determine the depth of cultural deposits. The materials excavated from these two units produced no temporally diagnostic lithic materials. A Wheeler sherd and several unidentified sherdlets were recovered from the plow zone. Four unidentifiable projectile point/knife fragments were found in the excavation. In all levels, 0.5-inch and 0.25-inch flakes amounted to 704 in Block A and 554 in Block B. These are 93.2% of the 755 lithic artifacts in Block A and 97.0% of the 571 lithic artifact in Block B.

An 18 cm thick plow zone was removed from both units as Level 1. Subsequent levels were 10 cm thick. Block A was excavated to 48 cm below ground surface (Level 4) and Block B was taken down to 58 cm (Level 5). Sterile sediment was not reached in Block A; Level 4 in that unit produced over 230 lithic artifacts. Heavy machinery that was erroneously driven over the site destroyed the unit before it was completed. Level 5 in Block B produced only five flakes. This low number is thought to indicate the bottom of cultural deposits in that unit.

Block C

Block C, a 4 m by 4 m unit, is the main test excavation on the Mud Creek site (Figure 11.7). The unit was placed near the Blocks A and B excavations and in the central, higher part of the site (Figure 11.2). Artifacts were collected from the surface of the block before excavation began, however, they were among the surface artifacts which were accidentally mixed.

Twelve levels, all of nine and part of three, were excavated in the block. Level 1 averaged 16 cm thick and included most of the plow zone. The base of the level was established at an even 10 cm interval relative to an arbitrary site datum. Levels 2 through 12 were all 10 cm thick. Only two 2 m by 2 m units were excavated in levels 10, 11, and 12.

The four features encountered on the site, two root casts and two pits, are from Block C. The pit features were impossible to excavate as pits so the areas suspected to be feature fill were excavated as segments of the general levels. These segments will be discussed here and in the section on Feature Classes. Stratum 6, the very compact, massive sandy loam stratum, was encountered in this block. The tabular distribution of artifacts by level appears in Appendix I.

A total of 8903 artifacts were recovered from the excavations of Block C. This number includes 8404 pieces of lithic debitage. Thirty-three sherds and 57 projectile point/knives came from Block C. Cores, preforms, and biface blade categories totaled 36 artifacts and other chipped stone implements 360. There were 13 ground stone artifacts in the block.

Block C Artifact Classes

Ceramics: The 33 sherds recovered are 0.37% of the artifacts from Block C. All were recovered in the first three levels. Three sherds are Late Woodland-Miller III; one in Level 1 is Mulberry Creek Cordmarked and two in Level 2 are Eroded Grog. An Eroded Sand sherd was collected from Level 1. Twenty Middle Gulf Formational sherds were recovered; a Wheeler Plain and a Wheeler Punctate from Level 2, and twelve, eleven, and four eroded or other fiber sherds from Levels 1, 2, and 3, respectively.

The ceramics are present in relatively light numbers. The ceramics indicate that components are thoroughly mixed in the upper two levels. This mixing is likely due to deflation, plowing, or bioturbation.

Chipped Stone: Various chipped stone implements, numbering 360 (4.04%), were recovered from Block C. The numbering of such artifacts drops sharply below Level 5, and none were recovered from below Level 8. There is a rise in numbers of 0.5-inch utilized flakes in Levels 4 and 5 which cannot be readily explained.

Projectile Point/Knives - Block C yielded 57 artifacts classified as projectile point/knives or fragments. These represent 0.64% of the Block C artifacts. The cultural periods represented in the sample range from Gulf Formational to Early Archaic. Temporally diagnostic projectile point/knives number 21 (36.8%) and are found mostly within the upper four levels. One is found in each of Levels 5 and 8.

Two Middle Woodland projectile point/knives, a Bakers Creek (Figure 11.6.c) and a Tombigbee Stemmed, and five Late Archaic projectile point/knives, four Little Bear Creek (Figure 11.6.j) and one Ledbetter-Pickwick, were recovered from Level 1. Nineteen unidentifiable fragments were also found in Level 1. Level 2 produced five Late Archaic projectile point/knives, four Little Bear Creek, and one Wade (Figure 11.6.k), as well as one Middle Archaic Crawford Creek (Figure 11.6.l) and one Early Archaic Kirk (Figure 11.6.o). Thirteen unidentifiable projectile point/knife fragments also came from level 2. Level 3 contained a single Kirk (Figure 11.6.p) and one unidentifiable projectile point/knife fragment. An Early Archaic component is suggested in

Level 4 by the presence of two Kirk and two Greenbrier (Figure 11.6.m-n) projectile point/knives. A Gulf Formational Flint Creek from Level 5 and a Late Archaic Ledbetter-Pickwick (Figure 11.6.f) from Level 8 were recovered.

Cores, Preforms, and Biface Blades - Thirty-six cores, preforms, and biface blades were recovered from Block C, representing 0.4% of that block's artifact total. All but two of these artifacts were recovered from the upper five levels. Five cores, twenty-four preforms, and seven biface blades or fragments were found. No patterns of distribution are apparent.

Nonutilized Lithic Debitage - This category contains 94.4% of the materials recovered from Block C. Lithic debitage numbers 8404 pieces. The debitage peaks at 2253 artifacts in Level 4 and decreases steadily through succeeding levels. Heated Camden chert is the most represented material type with 5942 specimens, or 70.7% of all debitage. Unheated Camden chert specimens number 1450 (17.3%). The Unheated Camden materials peak in Level 3, suggesting a possible change in the relative importance of heat treatment through time. The cultural strata, however, cannot be adequately defined to allow definitive statements. The suggested relative change in heat-treating should be considered in the analysis of other sites.

Ground Stone: These artifacts numbered 13 (0.15%) in Block C, all from Levels 1 through 4. Nine of the 13 are unidentifiable Ground Stone fragments.

Other: The weight data (in grams) of Introduced Rock does not demonstrate any startling material distributions. Fire Cracked chert peaked in Level 3. Unmodified Cobble/Pebbles peaked in Levels 2 and 3. Ferruginous Sandstone peaked in Level 2. Several specimens can greatly inflate the gram weight total of a level, especially in classes which are not common.

Biotic Remains

No floral or faunal remains have been identified from Block C or from elsewhere on the site. A number of flotation samples were taken but none have been sorted because of the extreme bioturbation recognized on the site.

Block C Segmentation

The data presented for the Block C excavations is compiled from all level excavations in the block, excluding the root casts which were featured (Features 1 and 3). The segments of the levels were lumped together for this tabular presentation.

There were three sets of segments which were segregated from the general matrix during excavation. Two of these are associated with dark stains in the profiles which are believed to be pits. These pits have been designated features (Features 4 and 5), however, the poor definition of these features makes it impossible to determine their origin or extent. The remaining set of segments is from Stratum 6, the light colored, compact stratum above Stratum 5. Ten 0.25-inch flakes were found in the six segments excavated as part of Stratum 6 in Levels 7 through 12. The materials recovered from the segments tentatively associated with Features 4 and 5 are discussed with those features.

Feature Classes

Only two classes of features were encountered in the test excavations of the Mud Creek site. Two root casts (Features 1 and 3) were excavated in Block C and given feature designations to minimize artifactual mixing of materials within the general levels. The other two features (Features 4 and 5) are amorphous pits located in Block C. Feature 2 was assigned to a stain but was subsequently voided.

Root Casts: Features 1 and 3 are casts of decayed tree roots with soft, uncompacted fill. The age of the casts is not determinable. Feature 1 contained one 0.5-inch flake and eighteen 0.25-inch flakes, and a few grams of introduced rock. Feature 3 contained four 0.5-inch flakes and twelve 0.25-inch flakes, and some pieces of introduced rock. A Tombigbee Stemmed (Figure 11.6.d) projectile point/knife (Middle Woodland) was also recovered from Feature 3.

Pits: Features 4 and 5 appear to be steep basin-shaped pits in profile (Figures 11.5 and 11.8). The pit boundaries are gradual to diffuse. During excavation, the outlines of the pit stains could not be adequately defined to make excavation of descrete features possible. The stains were segmented as part of the general excavation levels.

Feature 4 - This pit feature is located in the western side of the Block C north wall. The horizontal outline of the pit stain was indefinite and could not be used reliably to excavate the stain as a feature. The stain was first observed at the base of Level 4, however, it was not segmented until Level 6 due to its vagueness. The stain was segmented from Level 6 through Level 9, becoming smaller in each successive level.

The segments from the four levels produced seventy-one artifacts, all but three of which were flakes. An expanding base drill was recovered from the Level 6 segment. A preform II fragment and an Unidentified Chipped Stone Fragment were recovered from the Level 8 segment. The artifacts give no indication of the use or age of the feature.

Feature 5 - The west end of the Block C south wall profile (Figure 11.5) shows the vague suggestion of a pit feature. During excavations it was impossible to delineate any stain, so arbitrary segments were segregated from the regular level matrix. Levels 9 through 11 were segmented in an attempt to demonstrate artifactual differences between the area of the stain and the site matrix. Only two 0.25-inch flakes were recovered from the segments. No age or function can be determined for Feature 5.

DISCUSSION AND INTERPRETATION

SITE FORMATION

The Mud Creek site is predominately a fluvial floodplain feature created by localized deposition of sediments by the flooding of the Tombigbee River and Mud Creek. Cultural activity added artifactual materials to the accretional deposition of natural sediments.

COMPONENTS

It is lamentable that projectile point/knives must be depended upon so heavily at this time as chronological markers. However, since the temporal changes in other tool classes and debitage assemblages is not yet well documented, projectile point/knives must be used. These materials which were recovered in the excavations of the Mud Creek site indicate that no cultural stratum can be reasonable segregated with assuredness. The Law of Superposition states that the lower materials should be older if left undisturbed after deposition. There is some suggestion, as would be expected, that the artifactual materials represent, on the average, older occupations with increasing depth. The massive bioturbation that has been recorded on the site offers an explanation for why the site fill cannot be divided into cultural horizons.

ACTIVITIES

The vague character of the Block C features (and their minimal contents) and the apparently mixed site matrix make it impossible to determine specific activities on the site.

INTRA AND INTERSITE PATTERNING

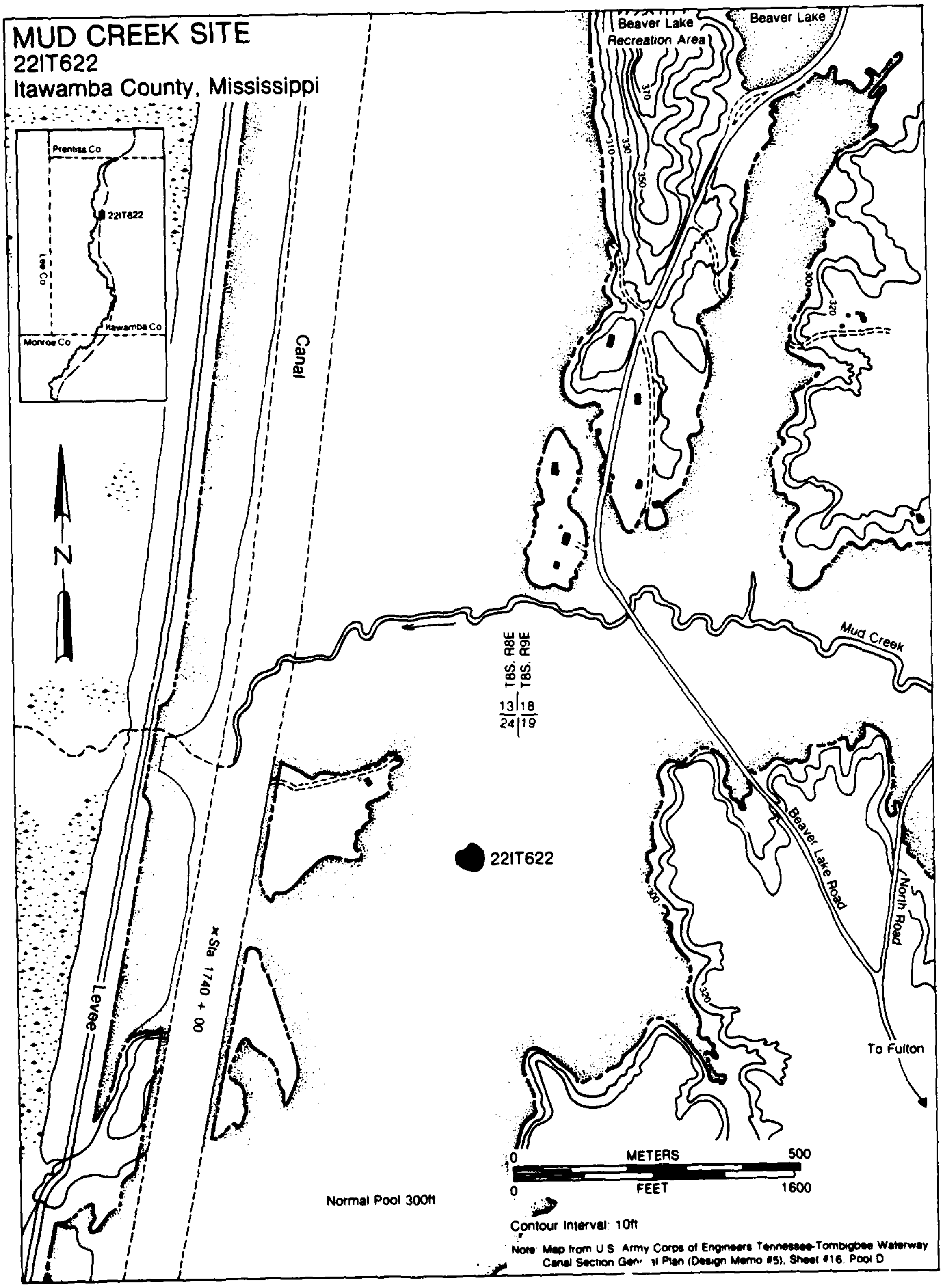
Determination of intrasite patterning on the Mud Creek site is an impossibility in light of the mixing present and the small amount of the site excavated. The role of the Mud Creek site in developing hypotheses of intersite patterning throughout the Upper Tombigbee Valley is limited. The ephemeral use of some sites in contrast to the larger sites, such as the Poplar (22IT576) and Walnut (22IT539) sites, demonstrates that patterning does exist in the utilization of the valley.

DIRECTION FOR FUTURE RESEARCH

No further excavations are recommended for the Mud Creek site. The cultural deposits appear mixed. Additional excavations are likely to yield little more data for the interpretation of aboriginal occupation of the Upper Tombigbee Valley.

Figure 11.1

Site 22IT622: Site location map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Prentiss Co
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Lee Co
Itawamba Co
Monroe Co
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Recreation Area
Beaver Lake
Canal
Mud Creek
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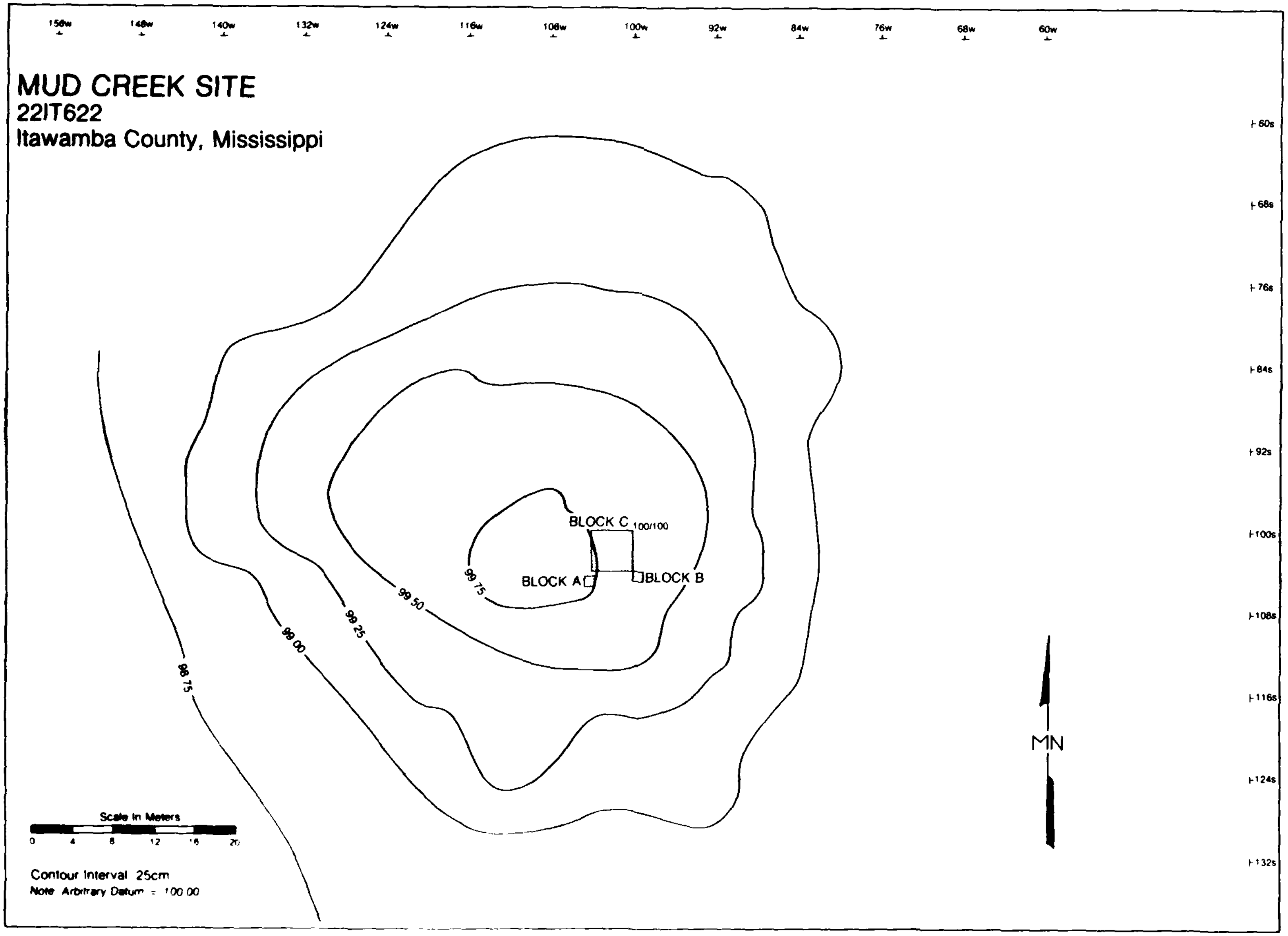
0
1600
Normal Pool 300ft
Contour Interval: 10ft
Note: Map from U.S. Army Corps of Engineers Tennessee-Tombigbee Waterway Canal Section Gen· ·l Plan (Design Memo #5), Sheet #16, Pool D

Figure 11.2

Site 22IT622: Topographic map and excavation plan



MUD CREEK SITE
22IT622
Itawamba County, Mississippi
156w
148w
140w
132w
124w
116w
108w
100w
92w
84w
76w
68w
60w
60s
68s
76s
84s
92s
100s
108s
116s
124s
132s
BLOCK C 100/100
BLOCK A
BLOCK B
99 75
99 50
99 25
99 00
98 75
MN
Scale in Meters
0
4
8
12
16
20
Contour Interval 25cm
Note Arbitrary Datum = 100 00

Figure 11.3

Site 22IT622: General view of site looking north

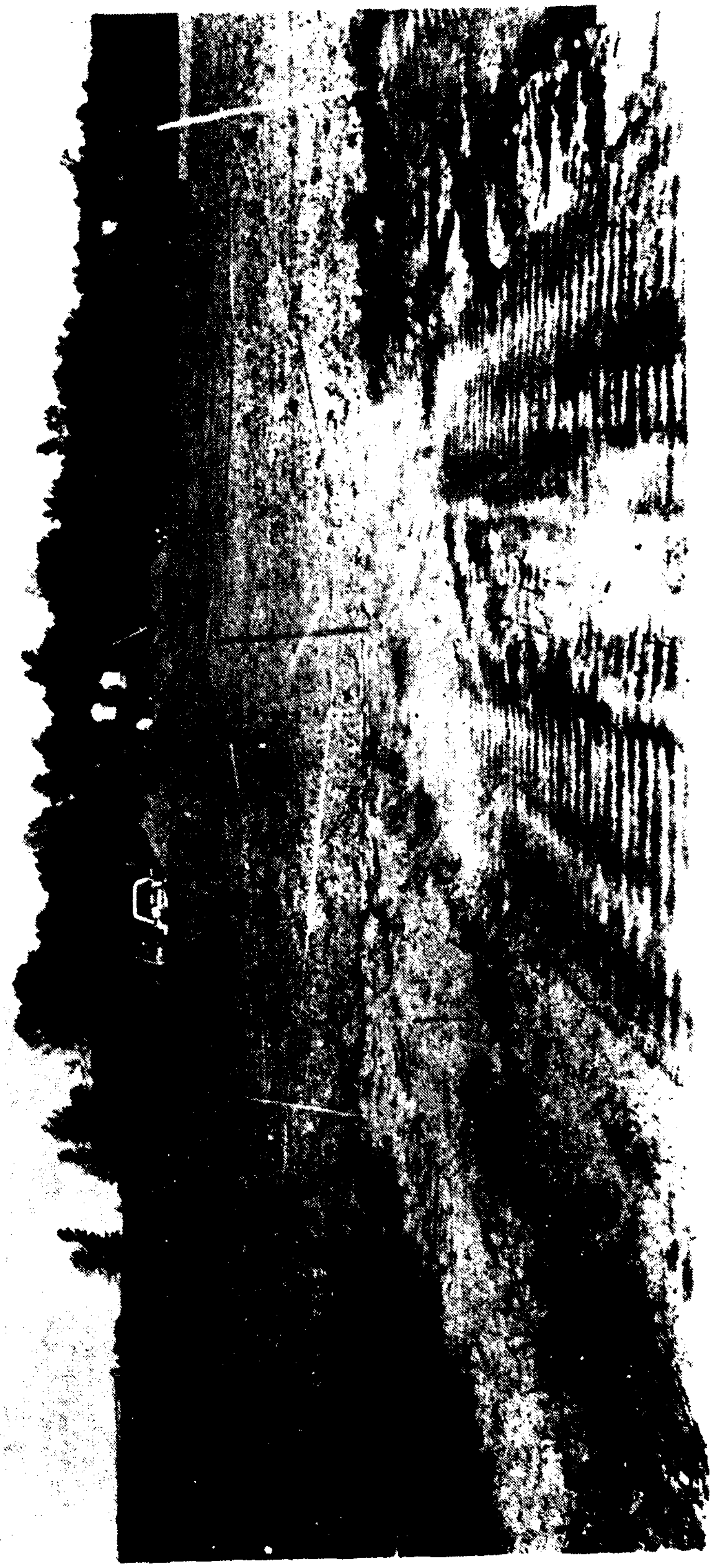
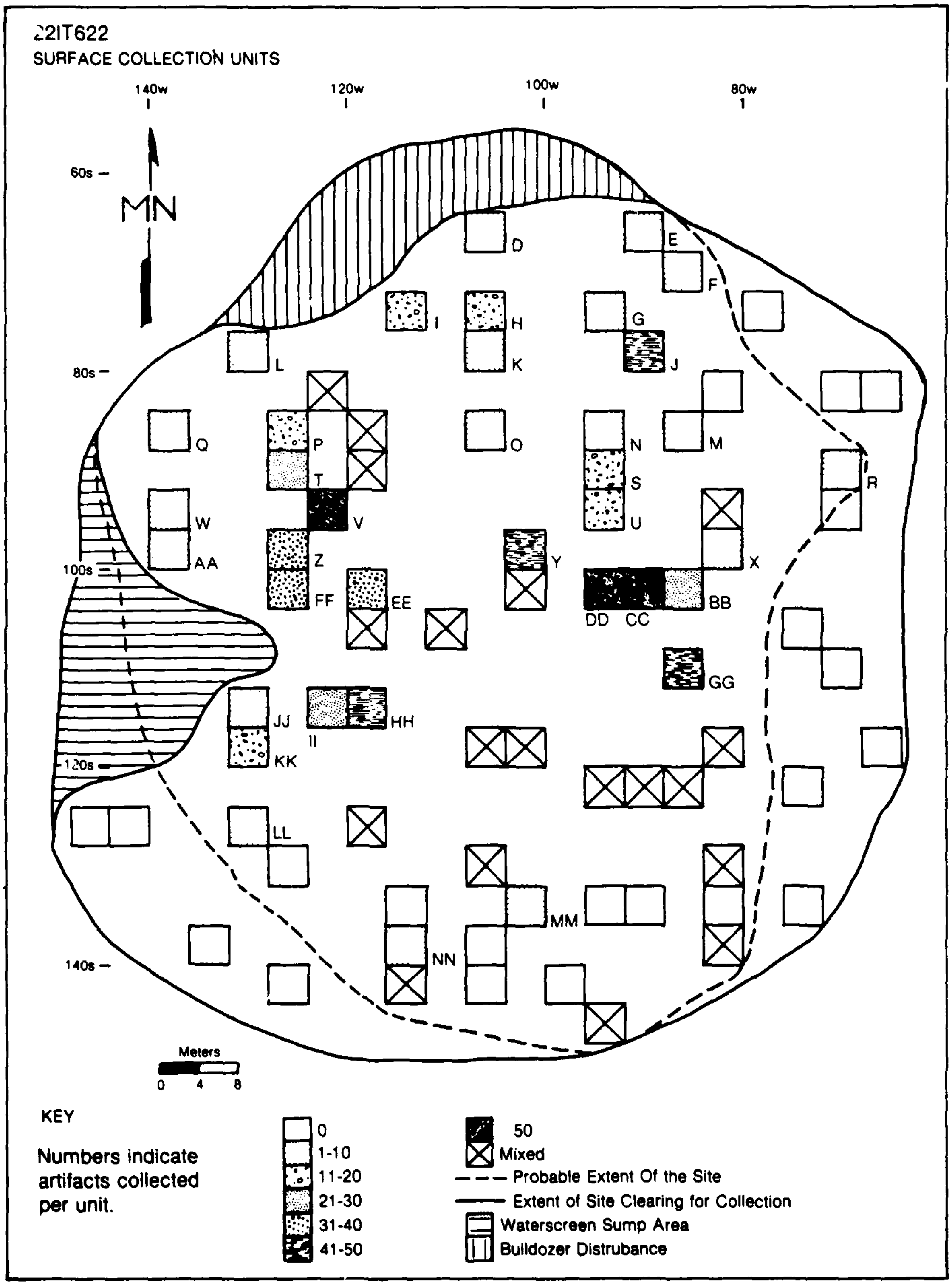


Figure 11.4

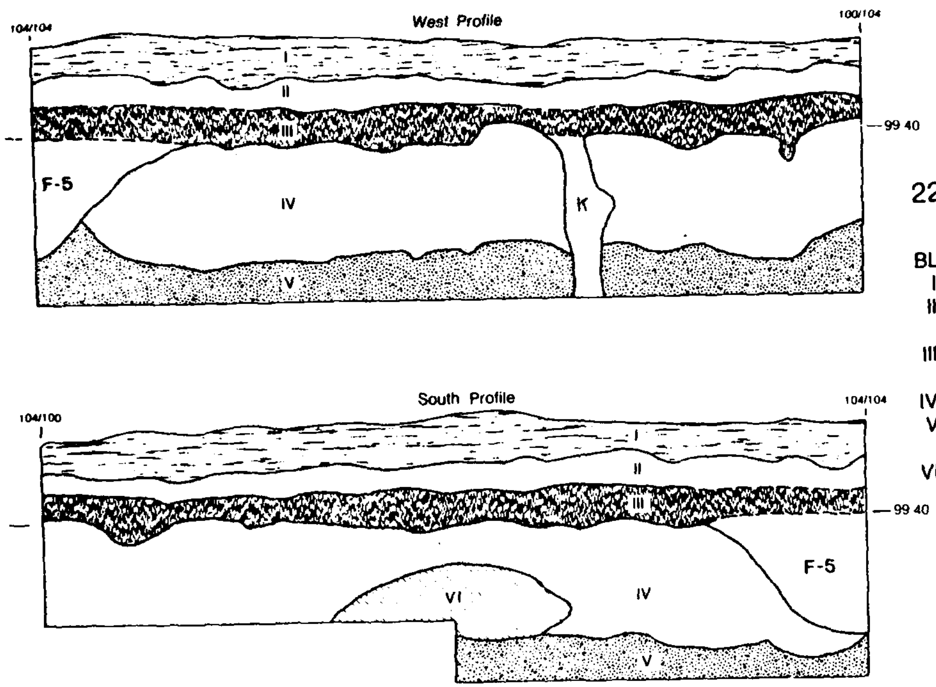
Site 22IT622: Surface collection plan



22IT622
SURFACE COLLECTION UNITS
140w
120w
100w
80w
60s
80s
100s
120s
140s
MN
D
E
F
I
H
G
J
L
K
Q
P
O
N
M
T
S
R
V
U
W
AA
Z
Y
X
FF
EE
DD
CC
BB
GG
JJ
II
HH
KK
LL
MM
NN
Meters
0
4
8
KEY
Numbers indicate artifacts collected per unit.
0
1-10
11-20
21-30
31-40
41-50
50
Mixed
Probable Extent Of the Site
Extent of Site Clearing for Collection
Waterscreen Sump Area
Buildozer Distrubance

Figure 11.5

Site 22IT622: South & West profiles of Block C



22IT622

BLOCK C (100s/100w)

I. Plowzone, dark brown (7.5YR 3/2) loam.
II. Dark brown (7.5YR 3/2) loam mottled with reddish yellow (7.5YR 6/6) and yellow (10 YR 7/6).
III. Brown (7.5YR 4/4) loam mottled with reddish yellow (7.5YR 6/6) and brownish yellow (10YR 6/6).
IV. Strong brown (7.5YR 5/6) loam.
V. Strong brown (10YR 5/6) sandy loam mottled with yellow (10YR 7/6) and very pale brown (10YR 7/4).
VI. Strong brown (7.5YR 4/6) sandy loam mottled with light yellowish brown (10YR 6/4).

cm 0 40

K Krotovina

Figure 11.6

Site 22IT622: Selected chipped stone artifacts

a. Shaft Drill
b. Expanding Base Drill
c. Baker's Creek Projectile Point/Knife
d. Tombigbee Stemmed Projectile Point/Knife
e - f. Ledbetter/Pickwick Projectile Point/Knife
g - h. Little Bear Creek Projectile Point/Knife
k. Wade Projectile Point/Knife
l. Crawford Creek Projectile Point/Knife
m - n. Greenbrier Projectile Point/Knife
o - p. Kirk Corner Notched Projectile Point/Knife

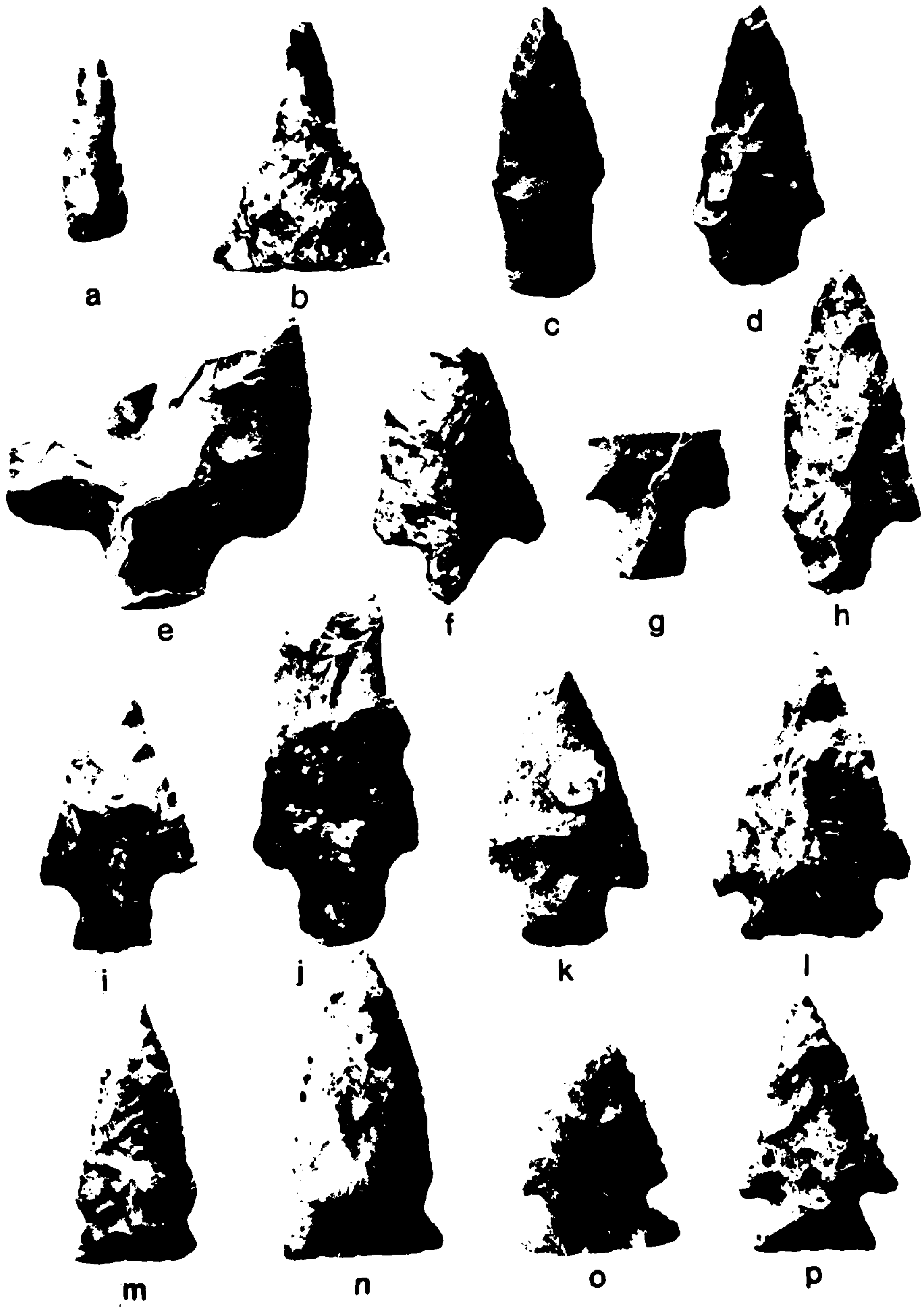


Figure 11.7

Site 22IT622: Excavation of Block C

Figure 11.8

Site 22IT622: Feature 4 profile

22 IT 622
FEATURE 04
C P 100 - 103.25
TOP ELEV 99.30
INITIAL
BLOCK C 03 OCT 80

CHAPTER 12

THE BEECH AND OAK SITES (22IT623 AND 22IT624)

PREFACE

The Beech site (22IT623) and Oak site (22IT624) lie on contiguous floodplain knolls formed by the dissection of a levee. Geomorphological and archaeological studies indicate that the geological anc cultural history of these locales is nearly identical. Consequently, information collected at these sites is presented in the following single report.

INTRODUCTION

The Beech site (22IT623) and Oak site (22IT624) were identified in 1979 during a survey designed to locate midden mounds in the Canal Section of the Tennessee-Tombigbee Waterway (Bense: 1980 d). The Beech and Oak sites were thought to lie outside the waterway construction right-of-way until clearing of the Pool C impoundment revealed otherwise in late Spring 1980.

J. A. Bense notified the U.S. Army Corps of Engineers--Mobile District that the sites probably would be impacted by waterway construction activities. A preliminary evaluation of the site's cultural resources by the U.S. Army Corps of Engineers--Mobile District and the Interagency Archaeological Services--Atlanta, resulted in the determination that further testing was needed.

The Office of Archaeological Contracts, University of West Florida contracted with the Corps to conduct test investigations at the Beech and Oak sites to more fully evaluate the cultural resources of these locales. Time was considered an essential factor because the sites had been withdrawn from the clearing operations that were in progress in the Pool C area. Fieldwork was implemented on September 4 and continued through October 9, 1980. A field party, averaging ten menbers, conducted the excavations.

SITE DESCRIPTION

The Beech (22IT623) and Oak (22IT624) sites are situated in Itawamba County, Mississippi, approximately 8 km north of Fulton, the county seat. The Beech site is located in the SE/SE/SW 1/4, Section 25, Township 8S, Range 8E at 34°21'58" N latitude, 88°24'38" W longitude. Universal Transverse Mercator (UTM) coordinates are: Zone 16, Easting 370080, Northing 3801530 (Fulton, Miss. Quadrangle 1965: USGS 7.5 minute series). The Oak site is located in the NE/NE/NW 1/4, Section 36, Township 8S, Range 8E at 34°21'56" N, 88°24'39" W. UTM coordinates are: Zone 16, Easting

370110, Northing 3801600 (Fulton, Miss. Quadrangle 1965: 7.5 minute series).

The Beech and Oak loclaes are situated in the impoundment area of Pool C in the Canal Section of the Tennessee-Tombigbee Waterway (Figure 1.1). Sites 22IT623 and 22IT624 will be impacted by the construction of the western Pool C levee (Figure 12.1). The Beech and Oak sites are situated approximately 100 m west of the proposed canal centerline and extend approximately 200 m north of Station 1640+00.

Sites 22IT623 and 22IT624 are located in the floodplain of the Tombigbee River, near the eastern valley escarpment. The river lies approximately 1.8 km west of the site and the base of the valey escarpment is situated about 250 m to the east.

The Beech and Oak sites occupy linear, ovoid knolls that rise about 80 cm above the surrounding floodplain. Each site measures approximately 80 m north-northeast/south-southwest by 30 m east-southeast/west-northwest. The locales are separated by a shallow swale, measuring about 15 m north-south, that runs east-west between the sites (Figure 12.2).

The knolls rise abruptly along the northeastern and southeastern sides and gently grade into the floodplain on the northwest and southwest edges. This morphology suggests that these topographic features were formed by over-bank deposition from the north and east.

A shallow depression that is wet seasonally parallels the eastern margin of both sites and probably represents a relic stream channel. A slough lies approximately 100 m further east and its course also parallels the north-south axes of the sites. A rank two stream lies about 75 m to 100 m west of the sites and flows from a series of spring branches several kilometers northeast of the site to a swamp located a half kilometer to the south-southeast (Fulton, Miss. Quadrangle 1965: USGS 7.5 minute series).

The area surrounding the sites was cleared of vegetation during mid and late summer 1980. A drainage ditch had been dug along the western margin of both locales (Figure 12.2) prior to this time to facilitate this clearing operation and subsequent construction. The activities created an island of vegetation (Figure 12.3).

The loamy soils (sediments) of these bottomland knolls support a floodplain forest composed of mixed mesophytic species (Table 3.2). The Beech site exhibits a later successional stage as exemplified by the size of trees and the sparse herbaceous under-story (Figure 12.4). Thickets of oak sapling, Smilax, climbing and prostrate vines form the Oak site understory (Figure 12.5). This plant community is the result of comparatively recent logging.

The vegetation of the area surrounding the Beech and Oak sites has been influenced by its floodplain location, soils/sediments, historic landuse, and climate. The climate of the Upper Tombigbee Valley (UTV) is moderate. The mean January and July temperatures are 6.7°C (44.1°F) and 27.5°C (81.6°F), respectively. The growing season generally extends from early April through late October and averages 222 frost-free days. Rainfall averages 20.9 cm annually with the heaviest percipitation occurring during December through March.

The UTV floodplain forest is inhabited by a range of large and small mammals, birds, waterfowl, reptiles, and amphibians. White-tailed deer, bobcat, red fox, raccoon, skunk, mink, beaver, muskrat, gray squirrel, cottontail rabbit, and opossum are examples of mammals commonly found today in the Upper Tombigbee River bottoms. Turkeys, mourning doves, quail, red-tailed hawks, great horned owls, turkey vultures, blue and green herons, wood ducks, and mallards are examples of the larger avian species that inhabit or migrate through the area. The water moccasin and copperhead are among the most frequently noted of the reptiles and amphibians living in the floodplain although a variety of colubrid snakes, land and freshwater turtles, frogs and toads also reside in the bottoms. The river, sloughs, and oxbow lakes in the nearby area support populations of bass, bowfin, carp, catfish, gar, perch, shiners, and sunfish.

Historic land use appears to be restricted. The Oak site has been logged sometime in the not too distant past. The size and composition of the forest cover on the Beech site and in the adjacent bottoms suggests that the area was timbered prior to timbering at the Oak site. The sites may have been used for limited agricultural purposes, particularly grazing or browsing farm animals. There is no evidence that either site was cleared and cultuvated. Relic collectors, however, have vandalized the sites occasionally. A few potholes have been dug in both the Beech and Oak sites. the damage does not appear to be great but surface indications can be misleading.

EXCAVATION STRATEGY

The purpose of the Beech and Oak site testing program was to determine the archaeological components represented at these sites and to evaluate the integrity of the cultural deposits. Time was an element in the testing program. The sites had been withdrawn from the contracted Pool C clearing job and rapid assessment would facilitate resolving resource management goals and active construction schedules.

A 4 m by 4 m block was judged to be a sufficient test for the evaluation of each site based on time and manpower constraints. Placement of the blocks was judgementally determined. Two principal assumptions governed the selection of the test block location: (1) the center of the topographic feature correlated with the approximate center or concentration of cultural deposits and (2) higher surface elevations reflected deeper archaeological deposits. The east-central section of each site met the conditions of centrality and elevation. The test blocks were located in this section of each site in areas that were free of obstructions and obvious intrusions.

After inspecting the sites and determining the general locations of the test blocks, horizontal and vertical control points were established. North-south and east-west baselines were laid out with a transit and chain and designated 100W and 100S, respectively. Grid station 100S/100W was placed in the extreme northeastern section of each site. Reference or grid stakes were set subsequently and the four contiguous 2 m squares forming the test block were gridded by triangulation. No attempt was made to correlate the 22IT623 and 22IT624 grids because of the heavy ground cover.

Vertical control was imposed by establishing an arbitrary datum, designated 100.0m, in each locale by driving lag screws/spikes into trees just above ground surface. Additional benchmarks, nails driven into trees near the ground, were set around each site to provide additional elevation references. Subsequently, each site was mapped with the use of a plane table, alidade and leveling rod (Figure 12.2).

Block excavations were conducted employing 2 m squares and 10 cm arbitrary levels as basic units of investigation. Features were excavated as independent provenience units. Lithic, ceramics, faunal, or botanical clusters were described, plotted, photographed, and removed. The excavation of pits differed slightly. The pit/stain surface was defined, mapped, and photographed. The feature was then bisected and one half of the fill removed, at which point it was profiled and photographed again. The remaining fill subsequently was removed and final photographs taken. Following this, cross section drawings were prepared.

Fill from general provenience levels was water-screened through 0.63 cm (0.25-inch) hardware cloth. Feature fill was processed by flotation. A control block was employed to recover special samples from the block excavation. These included perpetuity, pollen, biosilicate, soil, and macrobotanical specimens. A "perpetu ‿y" sample from which the above suite of samples can be derived was collected from each feature. A four liter macrobotanical sample also was collected from each square by level.

The profiles of each block were described, drawn, and photographed. These stratigraphic data were supplemented by stratigraphic trenches excavated by backhoe in each locale. Two stratigraphic trenches were dug in the Beech site. Stratigraphic Trench 1 was excavated from the eastern edge of the site northwestward toward the center of the local (Figure 12.2). This trench was 20.4 m long and cut to a maximum depth of two meters below surface on the west end. Stratigraphic Trench 2 was started 10.5 m farther northwest and dug along the same general axis as the first trench. This second trench cut the western edge of the site and extended a short distance into the floodplain (Figure 12.2). Stratigraphic Trench 2 as 14.7 m long and reached a maximum depth of nearly two meters.

A single stratigraphic trench was excavated in the Oak site, 22IT624. This trench was dug in the northwest sector of the local and extended from the eastern bank toward the center of the site (Figure 12.2). The Oak site stratigraphic trench was 12.6 m long and approximately 1.5 m deep. The western end of this stratigraphic trench was expanded in order to excavate a 2 m by 2 m square to sample Zone V.

The soil stratigraphy exposed in the stratigraphic trenches was described and samples of the various strata were collected for particle size analysis. *Profiles were not* drawn because the trenches flooded and the walls partially collapsed as a result of untimely, heavy rains.

SOILS AND STRATIGRAPHY

The Beech and Oak locales are linear features lying adjacent to and west of a relic stream channel. Fluvial sediments exposed in stratigraphy trenches indicate overbank deposition from the east. Massive sand deposits were thicker and coarser on the eastern edge of the site and graded in size and thickness toward the west or center of the locales. The fluvial sand deposits at the Beech site, the northern locale, were thicker and slightly more coarse than comparable strata exposed at the Oak site, the southern locale.

These characteristics indicate that the Beech and Oak locales most probably originated morphogenically as a levee(s). Although the topographic attributes and depositional history of both locales suggest that the area was formed as a single floodplain feature, we have not been able to ascertain when the feature was dissected and the present morphology established.

Cultural materials were recovered to a depth below surface of approximately 140 cm at 22IT623 and 120 cm at 22IT624. The base of archaeological occupations at both sites however is placed at a maximum of 100 cm to 100 cm below surface and is inferred to date to the Middle Archaic period. This indicates that the levee(s) minimally dates to c.5,000 to 7,000 B.P.

Both sites have aggraded since their initial occupation as documented by the distribution of archaeological remains to more than a meter below surface. The role that the occupants played in the aggradation of the levee is uncertain. They contributed to the matrix of each site through the discard or loss of ceramic and lithic remains and presumably introduced other material during th course of their residential activities. Differential preservation, however, largely has stripped the site of macrobiotic remains and other organic materials that probably added to the development of the locales.

The soil stratigraphy of the Beech and Oak sites is characterized by two major zones. A dark sandy loam midden and reddish brown loamy sand extend to a depth of about 90 cm below the surface. This zone correlates with the major archaeological occupations of the sites. The midden is underlain by yellowish brown loamy sands that exhibit little cultural modification in the form of organic staining or material content.

Six strata were defined during the excavation of the Beech and Oak sites. Figures 12.6 and 12.7 illustrate the stratigraphic zones defined during the test excavations of 22IT623 and 22IT624, respectively. These strata are briefly summarized below.

Stratum	Description
I	Dark reddish brown (5YR 2.5/2) sandy loam; weak subangular; friable; many roots/rootlets; clear, wavy boundary; Forest A Horizon.
IIA	Dark reddish brown (5YR 3/2) sandy loam; very weak subangular blocky; friable; many rootlets; ca.2% to 3% charcoal flecks; gradual wavy boundary; midden.
IIB	Dark reddish brown (5YR 3/4) sandy loam; very weak subangular blocky, friable; few rootlets; §2% charcoal flecks; gradual wavy boundary; midden.

III	Reddish brown (5YR 4/3) loamy sand massive, few roots; gradual, wavy boundary; transition from midden to fluvial sands.
IV	Yellowish brown (10YR 5/8) loamy sand mottled with very pale brown (10YR 8/4); massive; clear, wavy boundary; fluvial sands.
V	Dark yellowish brown (10YR 4/4) sandy loam; massive; clear wavy boundary; higher colloid content because of perched water table.
VI	Yellowish brown (10YR 5/8) loamy sand mottled with light gray to gray (5Y 6/1) clay; massive, fluvial sands.

A general correlation between the "natural" and cultural stratigraphy is recognized based on a comparison of archaeological materials recovered from arbitrary context and the soil profile. Figures 12.10, 12.11, and 12.12 contain examples of the hafted bifaces used as chronological markers in the discussion below. The correlations are considered tenuous. Residential activities, the duration or intensity of occupation, and plant and animal processes have resulted in a variable archaeological record characterized by mixed components, gradual transitions or boundaries between occupations and sparse diagnostic artifacts.

Stratum I and IIA principally contain cultural material representing a series of ceramic components dating from the Middle Gulf Formational to the Late Mississippian periods. Although the ceramics can be roughly seriated within these strata, specific cultural component assemblages cannot be isolated. These mixed ceramic components are mainly restricted to Levels 1.1 to 4, but may extend into Level 5.

Stratum IIB and III generally include cultural material characteristic of the Late and Middle Archaic periods. The Late Archaic component which is defined on basis of six Little Bear Creek and Benton hafted bifaces, occupies the upper section of Stratum IIB. Some ceramics are present in this section of the zone and may represent either intrusive materials or an incipient ceramic occupations. We believe the former to be the case but cannot conclusively demonstrate this. The Late Archaic component is identified in Levels 5 and 6.

Late, Middle, and transitional Early/Middle Archaic hafted bifaces were recovered from the lower portion of Stratum IIB and in Stratum III or Levels 7 through 9. The stratigraphic distribution of these usually single projectile point/knives which include Beechum, Cypress Creek, McIntire, Morrow Mountain, and Sykes-White Springs forms suggest that components present in these zones and levels are mixed. The sparse number of diagnostic artifacts and questionable stratigraphic context prevents establishing clear component distinctions.

A small amount of debitage and introduced rock was recovered from Stratum IV. These materials may indicate that the initial occupation of the site was established in the upper segment of this stratum which correlates with Levels 10 and 11. The number, size, and distribution of the flakes and rock and the absence of other cultural material however in the remaining portion of this zone suggest that these materials may be intrusive. Probably the simplest method of describing the initial occupation is that it correlates more or less with the transition from Stratum III to IV.

CULTURAL REMAINS

FEATURE CLASSES

22IT623

Ten features were defined during the test excavations of the Beech site. A cluster of bone (Feature 1), a rock concentration (Feature 10), an artifact concentration (Feature 3), and seven pits (Features 2, 4, 5, 6, 7, 8, and 9) were recorded. The first nine features were excavated in Block A (Figure 12.8) and defined in Level 5 or below. With the exception of Feature 2, all the pits were defined in Level 9 and it is highly probable that all originated above this location. The location of so many pits in Level 9 is principally the result of improved contrast in the matrix.

Only Feature 9, which contained Little Bear Creek (n = 2) and Gary (n = 1) projectile point/knives and no ceramics could be assigned with some certainty to an archaeological period, the Late Archaic. The stratigraphic context of Features 1, 2, and 10 suggest that these may also be of Late Archaic period origin. Feature 3, a ground stone artifact cluster found in Level 9, may date to the Middle Archaic or the transitional Early/Middle Archaic period.

Generally the features appear to represent phenomenon deposits and facilities. The bone cluster, Feature 1 and the groundstone artifact cluster may represent discarded or abandoned items. The faunal remains suggest, to no one's surprise, that butchering probably was practiced at the site. The implements found in Feature 3 could be utilized for in a range of processing and manufacturing tasks. The features that constitute facilities divide into two classes. Feature 10, presumably represents a hearth or perhaps an oven. Food preparation is a likely task to associate with this feature.

The remaining facilities are represented by pits. Generally these features are so amorphous and their contents so sparse that postulating any function beyond that of a storage/refuse facility is not possible and even this general correlation may be erroneous.

The contents of all features from this site are listed by feature in Appendix II. In addition the contents of each division of the features are listed by Identifecation Number in Supplement III. The features excavated at 22IT623 are summarized below.

Feature 1 (center: 122.85S/114.66W) is a large mammal concentration that was confined within an 18 cm by 19 cm by 3 cm area. The matrix surrounding the concentration was a very dark gray (5YR 3/1) sandy loam mottled with a dark yellowish brown (10YR 4/6) sandy loam. No artifacts were recorded in association. The absence of a discernible pit suggests that these remains may represent a surface deposit. The stratigraphic location of this feature in Level 5 indicates a possible Late Archaic or, perhaps, a Middle Gulf Formational period context.

Feature 2 (center: 121.60S/114.40W) is an irregularly-shaped oval pit with an irregular, basin-shaped cross section. The feature measures 212 cm by 238 cm by 60 cm and contained 1,177 liters of a dark reddish brown (5YR 3/2) sandy loam fill. This feature exhibited both horizontal and vertical stratigraphy. The original oval stain encountered during excavations was bissected and excavated. During the removal of these sections an intrusion (krotovina) was encountered and excavated. Subsequently, a large circular stain was found beneath and slightly to the west of the originally defined stain but was removed as part of Feature 2.

Although no diagnostic artifacts were recovered, the feature contained: projectile point/knive fragments ($\underline{n}$ = 3), drill fragments ($\underline{n}$ = 1), side-scrapers ($\underline{n}$ = 1), end-scrapers ($\underline{n}$ = 1), microliths ($\underline{n}$ = 1), cores ($\underline{n}$ = 1), unidentified chipped stone fragments ($\underline{n}$ = 2), ground hematite ($\underline{n}$ = 1), and debitage ($\underline{n}$ = 343). Introduced rock also was present and includes Conglomerate (209 g), Pebbles/Cobbles (29 g), Fire-cracked chert (19 g), Ferruginous Sandstone (658 g), Sandstone (45 g), Petrified Wood (28 g), Hematite (16 g), Limonite (4 g), and Ochre (5 g).

The absence of diagnostics including ceramics and the stratigraphic location of Feature 2, Level 5, suggests a possible Late Archaic period affiliation. The confused nature of the overlapping sections of Feature 2 suggests several alternatives related to its formation. First, the feature may be two distinct cultural entities with the upper, originally defined section representing a later pit intruding into an earlier feature. A second alternative is that the upper sections of this feature represents a cultural entity and the lower segment is of natural origin. A third possibility is that this complex feature represents a natural phenomenon like disturbance caused by root growth and decay or the uprooting of a tree.

Feature 3 (center: 120.45S/113.38W) is a rock cluster, located within a 22 cm by 20 cm by 9 cm area. No pit was observed in the surrounding matrix. Artifacts associated with Feature 3 include one muller and one hammerstone. The absence of a discernible pit suggests that the feature rests on an occupation surface. Cultural affiliation of this feature cannot be ascertained directly from its contents. The location of this feature in Level 9, however, suggests a possible Middle Archaic or transitional early/Middle Archaic period affiliation based on nearby but not directly associated Cypress Creek corner notched hafted biface.

Feature 4 (center: 121.80S/113.25W) is an irregular, basin-shaped pit with dimensions of 47 cm by 38 cm by 17 cm and a volume of 37 liters. The feature contains a dusky red (2.5YR 3/2) sandy loam fill in a matrix of dusky red (2/5YR 3/2) loamy sand mottled with light yellowish brown (10YR 6/4) loamy sand. Artifact content was sparse and limited to unidentified chipped stone fragments ($\underline{n}$ = 1) and debitage ($\underline{n}$ = 1). Introduced rock types present included Pebbles/Cobbles (2 g), Ferruginous Sandstone (104 g), Petrified Wood (1 g), Hematite (1 g), and Limonite (1 g). The stratigraphic position of Feature 4, Level 9, suggests a Middle Archaic to transitional Early/Middle Archaic period affiliation. Whether this feature is of cultural or natural origin is uncertain based on its morphology and content.

Feature 5 (center: 121S/112.65W) is irregular in plan and exhibits a "U-" to V-shaped cross section. The feature measures 42 cm by 46 cm by 18 cm and contains 12 liters of dark reddish gray (5YR 4/2) sandy loam fill. This was surrounded by a very pale brown (10YR 7/4) sandy loam mottled with a dark reddish gray sand. Material recovered from the feature includes debitage ($\underline{n}$ = 2) and Hematite rock (1 g). Feature 5 originates in Level 9. The low density of material recovered from this feature combined with its irregular cross section suggests a noncultural origin.

Feature 6 (center: 120.07S/112.72W) is an ovoid, basin-shaped pit. Measuring 18 cm by 35 cm by 10 cm and containing four liters of fill. The feature fill is a dark reddish gray (5YR 4/2) sandy loam surrounded by matrix of very pale brown (10YR 7/4) sand matrix. Material recovered from Feature 6 includes only two flakes. This feature was defined in Level 9 which is assigned to the Middle Archaic to transitional Early/Middle Archaic period. Whether this feature is of cultural or natural origin is unknown.

Feature 7 (center: 120.10S/113.40W) is an irregular, oval pit with a basin-shaped cross section that measures 18 cm by 23 cm by 10 cm and contains one liter of dark reddish gray (5YR 4/2) sandy loam fill. The surrounding matrix is a very pale brown (10YR 7/4) sand mottled with a dark reddish gray (5YR 4/2) sand. No material was recovered from Feature 7. This feature was defined in Level 9 but may have originated in Level 7 or 8. This suggests a Late to Middle Archaic time period. The shape, content, and shallow nature suggest that Feature 7 is of noncultural origin.

Feature 8 (center: 123.20S/112.40W), which extends into the east wall of Block A, appears to be an irregular ovoid in plan and basin-shaped in cross section. The excavated portion of this feature measured 78 cm by 70 cm by 59 cm and contained 462 liters of fill. The feature appears to have been stratified but was not so excavated. This feature was also disturbed by burrowing rodents. The original stain is characterized by a dark reddish brown (5YR 3/2) sandy loam mottled with dark reddish brown (5YR 5/2), dark gray (5YR 4/1), and gray (5YR 6/1) sandy loam in a dark reddish brown (5YR 4/4) loamy sand matrix. This feature contained no diagnostic artifacts. Other material recovered from Feature 8 includes preforms (n = 1), projectile point/knife fragments (n = 1), wedges (n = 1), chippd stone fragments (n = 6), and debitage (n = 36). Introduced rock present includes Pebbles/Cobbles (24 g), Fire-cracked chert (22 g), Ferruginous Sandstone (16 g), Petrified Wood (28 g), Hematite (20 g), and Limonite (5 g). Feature 8 was defined in Level 9 but probably originated in the overlying midden. Further we cannot be certain whether this feature is of cultural origin.

Feature 9 (center: 122.56S/113.87W) is an oval, basin-shaped pit measuring 72 cm by 69 cm by 25 cm and containing 57 liters of dark brown (10YR 3/3) sandy loam fill which was surrounded by a dark yellowish brown (10YR 4/4) loamy sand matrix. The feature contained three hafted bifaces, two Little Bear Creek (Figure 12.10 d,e) and a Gary projectile point/knife (Figure 12.10 a). Other artifacts recovered from the feature include projectile point/knives (n = 3), drills (n = 1), abraders (n = 1), and debitage (n = 7). Introduced rock recovered from the fill include Pebbles/Cobbles (1 g), Ferruginous Sandstone (39 g), and Hematite (9 g). One gram of fired clay was also recovered. Feature 9 was defined in Level 9 but most probably originates in the overlying midden. The inclusion of the Little Bear Creek and Gary hafted bifaces and the absence of ceramins indicates a Late Archaic origin. The plan, profile, and contents of this feature suggests that it functioned as a storage or refuse facility.

Feature 10 (center: 117.10S/108.80W) was partially destroyed before definition during the backhoe excavation of Stratigraphic Trench 1. The feature is a circular cluster of sandstone measuring about 50 cm in diameter and 15 cm to 25 cm in depth. The rock cluster was surrounded by a soil matrix of dark reddish brown (5YR 3/2 - 3/3) sandy loam. Feature contents included the introduced rock categories of Ferruginous Sandstone (724 g) and Hematite (146 g). No diagnostic artifacts were found in association The depth of this feature at circa 45 cm to 55 cm below surface correlates with transition from the ceramic to the preceramic occupations. This feature, therefore, may be either a Gulf Formational or Late Archaic facility. The presence of charcoal and ash mixed with sandstone suggests that Feature 10 may have served as a hearth or an oven.

22IT624

Five features were defined during the test excavation of the Oak site. Four were located in Block A (Figure 12.9) and one was documented in Test pit 97S/105W. All 22IT624 features were classed as pits/basins. The features were located in Level 7 or below where soil contrasts become more apparent. Only Feature 1 and, perhaps, Feature 2 probably represent cultural phenomena whereas Feature 3 through 5 most likely are the result of plant, animal or soil processes.

Only Feature 1, which contained a Benton Stemmed projectile point/knife and a McIntire projectile point/knife and no ceramics, could be assigned to an archaeological period, the Late Archaic. Feature 2 probably originated in Level 6 which is considered a Late Archaic context.

The 22IT624 features most probably represent storage/refuse pits. Feature 1 contains a small range of chipped and ground stone tool fragments, debitage and rock and organically stained fill suggesting that it may have functioned as a refuse facility for the disposal of broken items, lithic by-products and organic remains. Feature 2 contains a restricted set of remains composed of a small amount of debitage and rock and the fill does not reflect "heavy" organic content. These characteristics indicate that, if the feature is of cultural origin, it served as some type of facility other than a refuse pit.

The cultural material from each feature is listed in Appendix II of the report. The cultural material from each division of the features is listed by ID number in Supplement III. The features excavated at 22IT624 are summarized below.

Feature 1 (center: 107.85S/105.36W) is an ovoid, basin-shaped pit measuring 185 cm by 150 cm by 58 cm and containing 1,040 liters of fill. The fill of this feature graded from a dark reddish brown (5YR 2.5/2) sandy loam flecked with charcoal and "greasy" in texture at initial definition to a very dark gray (5YR 3/1) loamy sand mottled with yellowish brown (10YR 5/6) and pale brown (10YR 8/3) sand at the base. A Benton Stemmed projectile point/knife and a McIntire projectile point/knife were recovered from this feature indicating, along with the absence of pottery, a Late Archaic period cultural affiliation. A variety of artifacts were recovered and include: projectile point/knives (*n* = 3); preforms (*n* = 2); biface fragments (*n* = 2); end scrapers (*n* = 1); unidentified chipped stone fragments (*n* = 9); unidentified ground stone fragments (*n* = 2); and, debitage (*n* = 155). Introduced rock types present were Pebbles/Cobbles (21 g), Fire-cracked chert/chunks (34 g), Ferruginous Sandstone (1,448 g), Petrified Wood (6 g), Hematite (6 g), and Limestone (2 g). Feature 1 was defined in the upper section of Level 7. the fill of this feature closely resembles the overlying midden which suggests that the origin of this pit may be somewhat above its point of definition. Generally, the contents of this feature indicate that it served as a storage or refuse facility.

Feature 2 (center: 106.30S/106.55W) extended into the north wall of Block A. The excavated portion of Feature 2 measures 112 cm by 60 cm by 25 cm and containing 140 liters, indicates that it is basin-like in cross section and probably circular to ovoid in plan. The dark reddish brown (5YR 3/2) fill was less firm, greasier, and slightly darker than the dark reddish brown (5YR 3/3) loamy sand matrix. Cultural material recovered from the feature was limited to 25 nonutilized flakes and a small amount of introduced rock: Pebbles/Cobbles (5 g), Fire-cracked chert/chunks (16 g), Ferruginous Sandstone (213 g), Hematite (15 g), Limonite (1 g), and Manganese (1 g). Feature 2, although defined in Level 7, appeared to originate in Level 6 which suggests a Late Archaic period context. The sparse material recovered limits inferences about the activities that produced this facility, if in fact it is a cultural phenomenon.

Feature 3 (center: 107.60S/107W) is circular, basin-shaped pit measuring 59 cm by 49 cm by 15 cm and containing 28 liters of brown dark-brown (10YR 4/3) loamy sand fill in a dark yellowish brown (10YR 4/4) sand matrix. The feature contained only an Unidentified Chipped Stone Fragment, one nonutilized flake and 12 g of Ferruginous Sandstone. Feature 3 was defined at the base of Level 8, although it probably originated in the level above base on the presence of an irregular stain. Whether this feature is cultural or natural in origin is uncertain. If Feature 3 is a cultural entity, its context suggest a Middle to Late Archaic context.

Feature 4 (center: 107.85S/106.30W) is a circular, basin-shaped pit measuring 56 cm by 60 cm by 23 cm and containing 19 liters of fill. Feature 1 intruded into the northeastern quarter of this feature and a segment of the southern part was inadvertantly excavated as part of the general base. The fill of Feature 4 is characterized by a dark brown (10YR 4/3) loamy sand within a brown (10YR 5/3) matrix. The feature contained only one nonutilized flake and 18 g of introduced rock. No diagnostics were present. Whether this feature is of cultural or natural origin is uncertain.

Feature 5 (center: 98.40S/105.20W), located in Test Pit 97S/105W, is a circular, basin-shaped pit measuring 72 cm by 94 cm by 14 cm and containing 44 liters. This feature was characterized by three concentric horizontal segments that differentiated on the basis of color and texture. The innermost segment contained a dark brown (7.5YR 3/2) loamy sand mottled with brown (7.5YR 4/2) and brown (7.5YR 5/2) loamy sand. The middle segment contained a brown 7.5 YR 4/4) loamy sand that did not differ texturally from the inner section. The outer segment was characterized by a yellowish brown (10YR 5.6) sandy loam mottled with a light brownish gray (10YR 6/2) and dark yellowish brown (10YR 4/4) loamy sand. Feature 4 was incorporated in a dark brown (7.5YR 4.4) sandy loam mottled with pale brown (10YR 6/3) and yellowish brown (10YR 5/8) loamy sand. The fill of Feature 5 was sterile as was the surrounding Level 15 matrix. this indicates that the feature is of noncultural origin.

ARTIFACT CLASSES

Ceramics

22IT623

Appendix I presents the distribution of all ceramics recovered during the test excavations. Table 12.1 summarizes the ceramics from the Beech site.

The ceramics have been grouped by time period to provide insight to the components represented by the pottery recovered from 22IT623. This classification generally correlates with temper type. Identifiable limestone and sand tempered ceramics, diagnostic of the Middle Woodland period, have been grouped together. Also, plain (residual) and eroded sand tempered sherds have been assigned arbitrarily to a transitional Middle Woodland-Late Gulf Formational context because these sherds may represent either Miller or Alexander series types.

Table 12.2 illustrates the frequency of the ceramic classes within a level. Table 12.3 shows the frequency of ceramic classes between levels.

Several general trends have been noted. First, the only Mississippian shell tempered sherd, 80.47% of the Late Woodland grog tempered group, and all of the bone tempered class are confined to Levels 1.2 and 2.

Second, limestone, sand, and fiber tempered wares are first encountered in Level 2. Although these classes numericaly dominate the recovered ceramics from this level (Table 12.2), diagnostic Middle Woodland and Gulf Formational types occur with less frequency than Level 3 (Table 12.3). Although Level 3 is dominated by the diagnostic Middle Woodland limestone and sand tempered groups (Table 12.2), Gulf Formational ceramics occur in their greatest numbers: 5 Alexander and 51 Wheeler (Appendix I).

Third, a dramatic decrease in ceramics occurs in sherd count from between Level 3 ($\underline{n}$ = 244) and Level 4 ($\underline{b}$ = 51). Level 5 also shows a decline to 14 sherds. In these levels identifiable Gulf Formational ceramics occur more frequently as a class than the diagnostic Middle Woodland types (Table 12.3).

The distribution of ceramics in the 22IT623 test excavation generally show mixing throughout the ceramic bearing levels. There is a suggestion, however, that the ceramics are generally stratified (Table 12.3). Gulf Formational ceramics occur more frequently as a class in Levels 3 through 5. Identifiable Middle Woodland types occur as a class most often in Levels 3 and 2. Mississippian and Late Woodland groups are found most commonly in Levels 2 and 1.

22IT624

Appendix I illustrates the distribution of all ceramics recovered from this site. Table 12.4 summarizes the recovered ceramics.

Employing the same categorization described above, Table 12.5 illustrates the distribution of the Mississippian through Gulf Formational ceramic classes by level. Table 12.6 exhibits the frequencies of the ceramic temporal classes between levels.

Several observations are possible. Ceramics are generally distributed through Level 4 although low numbers of sherds were recovered from Levels 5 through 7 (Table 12.6). Further, ceramics are concentrated in Levels 1 through 3 with significant decreases present between Levels 3 and 4 and Levels 4 and 5 through 7 (Table 12.6).

Several chronological trends are present. First, the majority of the shell, grog, and bone tempered classes are confined between Levels 1.1 and 2 (Table 12.6). Second, identifiable limestone and sand tempered Middle Woodland ceramics most frequently occur as a class in Levels 2 and 3 as do the Gulf Formational, Alexander, and Wheeler types (Table 12.6). In Level 4, diagnostic Gulf Formational sand and fiber tempered types occur more frequently as classes than the Middle Woodland diagnostic category. The low number of sherds in Levels 5 through 7 generally suggest that these artifacts may be out of context.

Chipped Stone

Projectile Point/Knives

22IT623: A total of 31 identified hafted bifaces and fragments were recovered from general provenience in Block A, along with 46 unidentifiable distal, medial, and proximal fragments (Appendix I). Projectile point/knives were recovered from Levels 1 through 9 (Figure 12.10).

Generally, the hafted bifaces are distributed in chronological order, although the sequence is by no means pristine. Mississippian/Late Woodland Small Triangulars dominate Levels 1.2 and 2. Gulf Formational and Late Archaic types are contained in Levels 3 through 6. Middle Archaic hafted bifaces were recovered from Levels 7 and 8, and Level 9 yielded a transitional Early/Middle Archaic corner notched projectile point/knive.

The presence of a Ledbetter/Pickwick projectile point/knife in Level 1.2 and a Benton Stemmed hafted biface (Figure 12.10 j,k) in ceramic bearing Levels 3 and 4 suggests the Late Archaic and ceramic components are mixed. The ceramic data also reflects mixing within the ceramic bearing levels (Levels 1.2 through 5). Consequently, the recovery of Flint Creek (Figure 12.10 b,c) and Little Bear Creek (Figure 12.10 d-i) projectile point/knives, which may occur in either Gulf Formational or late Archaic contexts from Levels 2 through 5 is neither surprising nor particularly informative, given the ceramic distribution.

One Little Bear Creek projectile point/knife and a Benton Short Stemmed hafted biface were excavated from Level 6. The occurrence of these types and the absence of pottery suggests that Level 6 contains a Late Archaic occupation.

As noted earlier, Levels 7 and 8 contain diagnostic Middle Archaic hafted bifaces. Level 8, however, appears to be contaminated with a Late Archaic McIntire projectile point/knife (Figure 12.10 l) and a Residual (unidentified) Stemmed fragment (Figure 12.10 n) that is similar to a Flint Creek projectile point/knife, a Gulf Formational/Late Archaic type. If these Gulf Formational and Late Archaic types are properly identified, then the integrity of Level 8 and the preceding Level 7 is questionable.

A well-made, corner notched, proximal fragment exhibiting an expanded stem and thinned, unground base was recovered from Level 9. This hafted biface, typed as a Cypress Creek (Figure 12.10 o), is the lone diagnositc specimen from this level. On this projectile point/knife alone, Level 9 is presumed to be undisturbed.

Few, if any, pristine hafted bifaces were recovered from the 22IT623 excavation. Nearly all specimens exhibit some form of attrition whether the result of manufacture, use, or reworking. Most hafted bifaces probably were introduced into the archaeological record through breakage and discard or loss since only three projectile point/knives, two Little Bear Creeks and a Gary, were found in a context like a cache or pit which might suggest curation and abandonment.

22IT624: A total of 41 identifiable hafted bifaces and fragments (Figures 12.11 and 12.12) and 71 unidentified distal, medial, and proximal fragments were recovered from general provenience in Block A at 22IT624 (Appendix I). Projectile point/knives occurred most frequently in Levels 1.1 through 4 which contained 37 (90%) of the 41 identified projectile point/knives (88%) recovered from the site.

Hafted biface types recovered from Levels 1.1 through 4 suggest that Mississippian/Late Woodland through Middle Archaic components have been mixed. Levels 1.1 and 1.2 contain a Mississippian/Late Woodland Triangular (Figure 12.11 c,d), Late Archaic forms, and Middle Archaic types. Levels 2 and 3 are characterized by Mississippian/Late Woodland triangulars, Gulf Formational and Late Archaic stemmed corner removed types, and a Middle Archaic Morrow Mountain projectile point/knife (Figure 12.11 i). This distribution is duplicated in Level 4 except that late small triangulars are absent.

Levels 5 through 12 witness a dramatic decline in the occurrence of hafted bifaces. levels 5 and 6 each contain a single Gulf Formational/Late Archaic Little Bear Creek hafted biface (Figure 12.11 f,g). A Middle Archaic (?) Beecham projectile point/knife (Figure 12.11 j) was recovered from Level 7 and a Sykes-White Springs hafted biface also considered Middle Archaic type was found in Level 8.

The integrity of the Mississippian/Late Woodland, Gulf Formational, and Late Archaic components, predominating in Levels 1.1 through 4, is doubtful because of the co-occurrence of temporally, and presumably culturally, mixed diagnostic hafted biface types. Levels 5 and 6 contain single examples of the Gulf

Formational/Late Archaic Little Bear Creek type projectile point/knife. Given that these same levels contain a small number of nondiagnostic sand tempered and fiber tempered sherds, perhaps a "weak" Gulf Formational component is present. If these ceramics are intrusive, then the Level 5 through 6 zone component may represent a Late Archaic occupation(s). The integrity of the component(s) that occur in Levels 5 and 6 is considered questionable.

Level 7 yielded a single Beecham projectile point/knife, whereas Level 8 produced a Sykes-White Springs type. Both are considered Middle Archaic or transitional Middle Archaic/Early Archaic. Five sherds were recovered from Level 7. If each sherd is weighted equal to the diagnostic hafted biface, then there is little question that the integrity of a "Beecham" component is compromised. The sherds, however, probably are intrusive given the bioturbation at the site.

A Sykes-White Springs projectile point/knife was recovered from Level 8. No other diagnostic artifacts were encountered in this level. On this projectile point/knife alone, one may speculate that a Middle Archaic component of some integrity exists in Level 8.

Cores, Preforms, and Biface Blades

22IT623: A total of 15 cores, 5 preforms, and 14 biface blades, including fragments from each type, were recovered from the 22IT623 test block (Appendix I). Cores and core fragments are distributed throughout the cultural occupation of the site with eight specimens (53%) were confined to Levels 2 through 4. The remaining cores are scattered from Levels 5 (*n* = 1), 6 (*n* = 2), 8 (*n* = 3), and 10 (*n* = 1).

Preforms (Figure 12.13 a-d) were recovered only from Levels 3 (*n* = 4) and 4 (*n* = 1). Biface blades (Figure 12.13 e-g) and fragments thereof are distributed in Levels 2 through 6 and 8. Level 4 yielded 7 of the 14 specimens.

None of these artifact types are recognized as diagnostic and the samples sizes are too small to permit any generalizations concerning their role in a particular technological reduction system or utilization within an identifiable assemblage. Most of the preform and biface blade specimens, however exhibit edge attrition that suggest that service as implements rather than "pristine" discards of a reduction sequence.

22IT624: A total of 13 cores, 6 preforms, and 8 biface blades, including fragments, were recovered from the test block of

22IT624 (Appendix I). Cores (Figure 12.14 a,b) and core fragments were found most frequently in Levels 1, 2, and 3 (n = 10; 7170). The remaining specimens of this class were recovered from Levels 6 through 8.

Preforms (Figure 12.14 c-f) were found in Levels 2, 3, 4, and 6. Four of the six specimens were excavated from Levels 3 and 4. The vertical distribution of biface blades (Figure 12.14 g,h) coincides with preforms except that a specimen was recovered from Level 1. Again the majority of this class (n = 5; 63%) were recovered from Levels 3 and 4.

The vertical distribution of materials in this category is similar to that of the Beech site. The majority of the Oak site cores, preforms, and biface blades are concentrated in Level 4 and above like the Beech site. A distinct break in material occurs in Level 5 at the Oak locale and material is subsequently distributed in Levels 6 through 8. The hiatus in Oak site Level 5 appears to correlate with that which occurrs in Level 6 of the Beech site. This phenomenon, however, may represent a sampling error.

None of the 22IT624 cores, preforms, or biface blades are considered diagnostic and therefore prevent assignment, at this time, to a particular component. The mixed nature of the archaeological deposits, particularly in the upper four or five levels which include the midden zone also negate the possibility of definitively assigning any of these artifacts to a technological assemblage(s) which has any historical integrity within the site. Further, many of the artifacts classed as cores, preforms, and biface blades exhibit edge attrition which suggest utilization consequently, many of these specimens, particularly the preform and biface blade types, may represent end products of a tool manufacturing trajectory rather than stage products of a reduction sequency. At best, the current classification of many of the cores, preforms, and biface blades fails to recognize the complete life-cycle of these artifacts.

Miscellaneous Chipped Stone Implements

<u>22IT623</u>: The 22IT623 excavations produced a range of artifacts (n = 412) that have been classed into scraper, drill, other chipped stone, and utilized flake categories. These categories or constituent types are classed function and types/varieties established by morphological attributes.

A series of 24 scrapers (Figure 12.13 h-l) of various types were recovered from 22IT623 (Appendix I). Scrapers are most heavily clustered in Levels 2 and 3 (n = 8) and Levels 7 and 8 (n = 10).

The remaining five specimens occur in Levels 1.2, 4, 5, 6, and 9. The overall distribution of scrapers suggests that scrapers principally correlate with the ceramic components and the Middle Archaic occupations. Distributions of individual types have not been annotated because of observed variability within and between the "formal" types.

A series of drills (Figure 12.15 a-c) (n = 12), drill fragments (n = 5) and one microlith were recovered from 22IT623 (Appendix I). All but two of the drills or drill fragments were excavated from Levels 1.2 through 4. The majority (n = 5) of these were recovered from Level 3. The remaining drills were found in Levels 8 and 9. The microlith was excavated from Level 7. Expanding Base drills were found in Levels 3 and 7. Shaft drills were recovered only from Level 3. Recycled stemmed drills occurred in Levels 1.2, 3, and 8. All drill fragments were found in Levels 2 (n = 1) or 4 (n = 4). This general distribution of drills again indicates a clustering in the upper or ceramic zone and in the lower levels of the site that may contain a Middle Archaic occupation.

The other chipped stone grouping includes 2 adzes (Figure 12.15 h,i), 8 unifacial and bifacial knives (Figure 12.15 d-f), 1 wedge (Figure 12.15 g), and 67 unidentified unifacial and bifacial fragments. The adzes were recovered from Levels 3 and 4. Unifacial flake knives (n = 3) were found in Levels 2, 3, and 7 whereas bifacial flake knives (n = 5) were from Levels 2 (n = 3), 8 (n = 1), and 14 (n = 1). Unidentified fragments were distributed in Levels 1.2 through 9 and 12. Fifty-four per cent (n = 36) of these artifacts were recovered from Levels 1.2 through 4.

Appendix I contains the distribution of the 296 utilized flakes, prismatic blades (cf blade-like flakes), and chert chunks. Seven 1-inch utilized flakes were recovered from Levels 2 through 4. Utilized flakes of the 0.5-inch (n = 127) variety were found in Levels 2 through 8, 7, and 14; 75% (n = 95) were confined to Levels 2, 3, and 4. One-quarter-inch utilized flakes (n = 153) were recovered from Levels 3 through 10, 73% (n = 111) again were found in Levels 2 through 4. Utilized prismatic blades (n = 2) were excavated from Levels 5 and 8. Seven utilized chert/chunks were recovered from Levels 3 through 6. Generally utilized debitage concentrates in the upper segment of the site and correlates with the greater quantity of material remains and debris that is found in the midden.

Overall, the distribution of the scraper, drills, and identified other chipped stone suggests two primary occupation zones that equate with Levels 1 through 4 and Levels 7 through 9. Differentiation between these "occupation" zones is suggested by peaks in the scraper, drill, and identified other artifact classes in the noted zones and the absence or low frequency of these same classes in the intervening Levels 5 and 6. By contrast, however, the "mass" types, unidentified chipped stone and utilized debitage exhibit only a general decrease from Level 5 through the deeper levels. These materials suggest that the two hypothesized "occupation" zones may be more apparent than real.

The material generally included in this miscellaneous category indicated that a range of manufacturing and processing activities were practiced at the site. Butchering, hide-working, bone- and wood-working are generalized tasks that might be performed with one or more items in this class.

22IT624: The 22IT624 test excavations produced a range (n = 415) of scraper, drill, other chipped stone, and utilized flake artifacts. The distribution of materials included in these categories is presented in the summary tables in Appendix I.

Scrapers (Figure 12.12 g,h) occurred infrequently. Four were recovered; one each from Levels 4, 5, 7, and 8. The recovery of only four scrapers from this site contrasts markedly with the 24 specimens identified at 22IT623.

A number of drills (Figure 12.12 i-m) (n = 8), drill fragments (n = 15), perforators (n = 1), and microliths (Figure 12.12 n) (n = 1) were excavated at this site. Shaft drills (n = 4) were found in Levels 2, 4, 5, and 8. Recycled stemmed drills were recovered from Levels 2 (n = 1) and 3 (n = 3). Drill fragments (n = 15) wre found in Levels 1.2 through 7, excluding Level 4; 10 of these were clustered in Levels 1.2 through 3. The perforator was recovered from Level 2 and the microlith from Level 4. The majority (18; 72%) of the implements included in the drill category cluster in or above Level 4 which correlates with the ceramic occupation.

The other chipped stone group includes on adze, one chopper, eight unifacial or bifacial knives, one Piece Esquille, and 125 unifacial and bifacial fragments (Appendix I). The adze (Figure 12.16 a) was found in Level 3 as was the chopper (Figure 12.16 b). Five unifacial flake knives (Figure 12.16 c) were recovered from Levels 4 (n = 3), 5 (n = 1), and 7 (n = 1). Bifacial flake knives (Figure 12.16 d) (n = 2) were excavated from Levels 5 and 7. A single unifacial cobble knife was found in Level 5. The one piece esquille (Figure 12.16 f) was recovered from Level 5. Unidentified fragments were distributed in Levels 1.1 through 9. The majority (91; 73%) of these specimens were excavated from Levels 1.2 through 4.

The summary tables in Appendix I contain the distribution of the 250 utilized flakes and chert/chunks excavated at 22IT624.

Eleven 1-inch flakes were classed as utilized; these occurred in Levels 1.2 through 4, 7, and 8. Utilized flakes of 0.5-inch (n = 113) and 0.25-inch (n = 124) size were distributed in Levels 1.2 through 9. Only two utilized chert/chunks were found and these were recovered from Level 2. Generally, the utilized debitage concentrates in the upper section. Eighty percent or 201 specimens were recovered from Level 1.2 through 4. This distribution reflects the overall quantitative distribution of material in the site.

The scrapers, drills, and other materials included in this category are scattered from Levels 1.2 through 9. No clear patterns emerge other than the heavy concentration of material in upper zone of the site. Tools in the form of scrapers, drills, and flake knives are found first in Level 8 suggesting that this is initial level of occupation, despite a scatter of fragments and utilized flakes in the underlying level.

The material included in this category reflects much the same broad range of activities as postulated for 22IT623. Only one significant discerpancy lies between the two sites in terms of represented implements. Site 22IT623 yield 24 various scrapers whereas this locale produced only four. This dichotomy may indicate differential utilization of the tasks or activities in which scrapers were employed. This dichotomy may also simply represent a sampling error.

Nonutilized Debitage

22IT623: The excavation of the 22IT623 test block produced 5,116 nonutilized lithic flakes and prismatic blades of various raw materials. The size-graded flakes include the following: 21 1-inch, 825 0.5-inch, and 4,265 0.25-inch. Five prismatic blades also were recovered.

The size-graded flakes and the blades were sorted by raw material type (Table 12.7). Thermally altered or heated Camden chert dominate all classes. Heated Camden chert constitutes 43% (n = 9_ of the 1-inch flake class (n = 21), 76% (n = 623) of the 0.5-inch flakes (n = 825), and 76% (n = 3,249) of the 0.25-inch debitage class (n = 4,265). Nonthermally altered Camden chert formed the second largest raw material type represented in the 0.5-inch and 0.25-inch flake classes. Twelve percent (n = 101) of the 0.5-inch flakes and 10% (n = 425) of the 0.25-inch debitage are Heated Camden chert. The third major raw materials constituent is evidenced in the 0.25-inch flake class where 8% (n = 322) of the specimens are Fort Payne chert. Other raw material types and varieties that are represented in the 0.5-inch and 0.25-inch classes exhibit frequencies of less than 4%. The 1-inch flake class has been excluded from this generalization because of the small size ($\underline{n}$ = 29).

Flakes were recovered to a depth of Level 14. The distribution of each nonutilized debitage class is presented in the summary tables in Appendix I. Levels 2, 3, and 4 yielded 1,076, 1,482, and 1,018 flakes, respectively. Levels 5, 6, 7, 8, and 9 produced 618, 272, 179, 200, and 90 flakes in respective order. Levels 9 through 13 produced 23 or fewer flakes each. Level 1.1, which was normally less than 10 cm deep did not yield any flakes.

The distribution of the 22IT623 flakes indicates shifts in the quantity of debitage introduced into the site's cultural record. An increase of 39% occurs between Levels 10 and 9. A 223% increase differentiates Level 9 from Level 8. Level 5 is separated from Level 6 by an increase in flakes totaling 227%. A 165% rise demarcates Level 4 from Level 5. Level 3 is differentiated from Level 4 by a 146% increase in debitage.

Decreases in the quantity of debitage occur in Level 7 which contains 89% of the flakes found in Level 8 and in Level 2, which produced 73% of the quantity of debitage recovered from Level 3 and Level 1.2 yielded only 11% of the flakes in Level 2. Generally, the debitage frequencies suggest that Levels 2 through 4 or, perhaps 5, form a cluster in the upper segment of the site and Levels 5 or 6 through 9 contain a second grouping representing the lower portion of 22IT623.

An examination of the distribution of the 0.25-inch debitage has proved useful. Table 12.8 presents a frequency distribution of the raw material types expressed as percentages of level population.

Several trends are present. Thermally altered or heated Camden chert dominates the inventory and prevails in all levels from which flakes were recovered. Nonheated Camden chert represents the second most common raw material type within the 0.25-inch debitage class. The quantity of nonheated Camden chert inversely varies with that of heated Camden chert in nine of ten cases where the level sample exceeds 0.5% of the debitage population.

Ft. Payne chert is the third most frequent material represented. Generally, the deepest units produced the highest percentages of this material; however, these units also exhibited the smallest sample sizes which may partially account for this phenomenon. Still, Level 8 shows a decline in the percentage of Ft. Payne from the underlying Levels 9 through 12. Subsequently, in Levels 7 to 3, the Ft. Payne ranges between 6.2 and 9.7%. A decrease is registered in Level 2. Two clusters appear to be present in the [illegible] 3 to 7 Ft. Payne material. Material in Levels 6 and 7 group in the 6% range whereas Levels 3 to 5 cluster in the 8 to 9% range.

The Level 3 to 5 cluster of Ft. Payne chert tends to correlate with the presence of the greatest number of minority material types including Bangor, Fossiliferous Bngor, Novaculite, and Pickwick cherts and Hematite, Quartzite, Tallahatta Quartz, and Sandstone. These minority raw material types occur in varying combinations and numbers in Levels 3 to 5 and are also found in Levels 2 and 6. These minority types correlate with highest percentage frequencies in the site which occur in Levels 2 through 5.

Three additional raw material types stand out in the 0.25-inch debitage class. Nonheated Tuscaloosa gravel chert, cherty Conglomerate and Ferruginous Sandstone exhibit their highest percentage frequency in Levels 7 or 8, excluding deeper levels which contain level samples of less 0.5% of the debitage population. Nonheated Tuscaloosa gravel and Conglomerate peak in Levels 7 and 8 whereas Ferruginous Sandstone peaks in Levels 6 and 7.

The distribution of the Nonheated and Heated Tuscaloosa gravel contrast. The heated variety is found in Levels 2 through 5, reflecting a distribution like the minority types noted previously. The nonheated variety of Tuscaloosa gravel is distributed in Level 5 and below.

These trends suggest several things. The dominance of Camden chert indicates primary utilization of a local chert with the exception of Ft. Payne, exotic raw materials, primarily the cherts, form a minor portion of the inventory and generally correlate with Late Archaic and ceramic levels, or Level 6 and above. This suggests either acquisition of materials from "afar" through any one of several cultural mechanisms like trade or travel to quarry locales or because of increased use of the locale for lithic manufacture, the "chance" introduction of exotics collected from local gravels.

The distribution of heated or thermally altered debitage is of interest. The frequency of heated and nonheated Camden chert vary inversely and the former generally tends to increase through time at the expense of the latter. Heated and Nonheated Tuscaloosa gravel exhibit a similar pattern except these varieties are nearly mutually exclusive. Heating or thermally altering therefore appears to increase in popularity through time. While heat treating may have become more prevalent as a technological device or process, the possibility that this material has been unintentionally fired also increases. The midden zone of 22IT623 and other project sites consistently exhibit evidence of fires. If site clearing was accomplished periodically by burning brush and other undergrowth, as an example, this most probably would effect debris on or near the surface. In addition to any number of these postulated clearing episodes, cooking, heating, and smudge fires most probably contributed to heat treating nearby lithic debris as would an occasional forest conflagration.

22IT624: The 22IT624 test block excavation yielded 7,892 nonutilized flakes. This debitage was distributed from Level 1.1 through 12 (Appendix I). The size graded flakes include: 55 1-inch, 983 0.5-inch, and 6,854 0.25-inch (Table 12.9).

The debitage size types were sorted by raw material of these classes. Table 12.9 presents percentage and numerical frequencies. Thermally altered Camden chert flakes dominated the inventory of each size class. Nonthermally altered or unheated variety of Camden chert ranked as the second most common type in the 1-inch and 0.5-inch classes. Ft. Payne chert outranked Unheated Camden slightly in the 0.25-inch debitage class. Ft. Payne chert ranked third in the 0.5-inch debitage, but was not represented in the 1-inch group. Flakes of Conglomerate and Ferruginous Sandstone are the only remaining types which exhibit comparatively high frequencies in all debitage class.

The 22IT624 debiage is distributed through Level 12. Level 9 through 12, however contain less than one percent of the debitage sample. The distribution of the types and variety of the debitage was examined by charting the frequency expressed in percentage, of the 0.25-inch flakes (Table 12.10). This class was scrutinized because of population size.

Several distribution trends appear to be present. Heated (thermally altered) Camden is present throughout Levels 1 through 12 and is the major type-variety. This chert type varies in frequency from level to level a phenomenon which appears related to the sample size and increased representation of minority types or type/varieties. A decrease in the percentage of Heated Camden correlates with an increase in the nonheated variety of Camden chert. This pattern holds in the majority of levels that contain a sample of 0.5% or more of the 0.25-inch population.

Ft. Payne chert, the second most common raw material type, peaks in Levels 4 and 5 with somewhat lower frequencies occurring in Levels 6, 7, 2, and 3. These latter clusters are near equal and when taken with the Level 4-5 cluster exhibit a near bell-shaped curve. This distribution suggests that Ft. Payne chert was introduced into the site in Level 7 and peaked in use in Levels 4 and 5 and declined in popularity in Levels 2 and 3.

Other chert types - Fossiliferous Ft. Payne, Blue-Green Bangor, Fossiliferous Bangor, Novaculite, Oolitic, and Pickwick tend to co-occur with Ft. Payne but are more commonly found in Levels 1.2 through 6 where four or five of these six types co-exist. This suggests that these types may very slightly post-date the introduction of Ft. Payne chert.

A series of other nonchert raw material types Hematite, Petrified Wood, Quartzite, Tallahatta Quartzite, Sandstone, and Siltstone - reflect a distribution similar to the nonlocal cherts. These nonchert types are limited to Levels 1.2 through 6, but two to three of these material types co-occur or cluster in Levels 3, 4, or 5.

Two additional raw material types, Conglomerate and Ferruginous Sandstone, stand out in the debitage distribution. Conglomerate flakes are found throughout Levels 1.2 through 9. Flakes of this material type form two clusters, Level 2 to 4 and Level 7 to 9. The highest frequency occurs in Level 8. This level also contains the lowest occurrence of Heated Camden and the highest frequencies of Unheated Tuscaloosa and Ferruginous Sandstone flakes. Generally the highest percentages of Conglomerate flakes are found in the lower levels of the site.

Ferruginous Sandstone debitage remains to be considered. Flakes of this raw material type occur in Levels 1.2 to 8. The frequencies observed for this material type indicate clusters in the following levels: 2 and 3, 4 and 5, 6 and 7. This distribution resembles an inverse bell-shaped curve and is directly counter to the distribution pattern of Ft. Payne chert. Ferruginous Sandstone flakes exhibit their highest percentage in Level 7, as do Conglomerate and Unheated Tuscaloosa, in contrast to the lowest frequency of Heated Camden.

Generally, the 22IT624 0.25-inch debitage suggest several patterns. First, the lower levels, which presumably represent the earliest component(s), appear to be represented raw materials presumably of local origin, i.e. Camden chert, Tuscaloosa gravel chert, cherty Conglomerate, and Ferruginous Sandstone. Heat treated materials while major constituents of the lower level samples appear with less frequency than later in the site's history as discussed above. Conversely, nonthermally altered raw material types make up a greater portion of the debitage samples in the lower zone.

A change in the debitage population appears between Levels 7 and 6. Level 6 shows the introduction of five minority raw material types that were not previously represented in the debitage inventory. Further, Level 6 contains a population 2.5 times larger than that of Level 7. This population increase is only exceeded by the percentage rises between Levels 11 and 10 and 10 and 9. Generally, the increased debitage frequency in Level 6 coupled with a slightly expanded lithic raw material inventory, marks either a change in the occupation, the availability of raw materials, or the lithic reduction or maintainence tasks performed at the site. The trend of expanding debitage populations and raw material types continues upward and peaks in Level 3. Subsequently, in Level 2 and 1.2, debitage counts decrease. This suggests a change in site utilization or the tasks performed.

Ground Stone

22IT623: Excavation of the 22IT623 test block yielded 56 ground stone items, the block and level summaries in Appendix I, which were classed by traditionally accepted functional types. Unidentified groundstone fragments constitute the majority (*n* = 41; 72%) of artifacts in this category. An Abrader, two Awls, five Hammerstones, one Mortar, one Muller, one Muller-Pitted Anvilstone (Figure 12.17), four pieces of ground hematite and limonite, and two ground flakes constitute the remaining specimens included in the ground stone category.

Levels 3 and 7 produced the largest numbers of ground stone, items, 15 and 9, respectively, but both level inventories where dominated by unidentified fragments. Level 2, 4, 5, and 7 also yielded comparatively high ground stone counts with 6, 8, 8, and 6 specimens were recovered, respectively.

Few generalizations can be advanced concerning the distribution or activity correlates because of the low frequency of any class or type of ground stone artifacts. Hammerstones occur most frequently (*n* = 5) of those artifacts which have commonly accepted functional correlates. These artifacts are distributed principally (*n* = 4) in Levels 3 through 5. The abrader and awls were recovered from Levels 5 and 3, respectively. The Mortar and Muller was excavated from Level 8 and the Muller-Pitted Anvilstone from Level 7. The two ground stone flakes which may have been struck from bitted implements like axes and celts were found in Level 6.

The Muller and Mortar represent the earliest ground stone artifacts found in the site by virtue of their recovery from Level 8. this stratigraphic position is considered to represent a Middle Archaic context.

22IT624: The 22IT624 test excavation produced 91 ground stone artifacts (Appendix I). Fifty-six percent (*n* = 51) of the groundstone specimens are unidentifiable fragments. The remaining ground stone inventory (Figure 12.18) includes: two Abraders, four Pitted Anvilstones, one Atlatl Weight fragment, one Awl, two Bead Preforms, one Drill Core, five Hammerstones, one Mortar, two Mullers, eight pieces of ground hematite and limonite, and thirteen ground flakes.

Level 3 produced the most ground stone items (n = 27). Level 3 also contained the greatest number of ground stone artifacts excluding unidentified fragments (n = 15). Levels 1.1, 2, 4, 5, and 6 yielded comparatively high groundstone counts of 5, 16, 13, 11, and 9 artifacts recovered, respectively.

Excluding unidentified fragments, ground stone flakes are represented most commonly (n = 12). These artifacts were concentrated in Levels 1.1 through 5. Levels 3 through 5 contain the greatest range of ground stone items including Abraders, Pitted Anvilstones, the Awl, Bead Preforms, the Drill Core, a majority (n = 4) of the hammerstones, one of two Mullers, five of eight limonite or hematite pieces and 11 of 12 ground stone flakes. A Mortar, one Muller, two pieces of ground limonite and a ground stone flake were recovered in Level 8. Unidentified fragments were recovered from all levels 1.2 through 7.

The 22IT624 test excavation produced a greater diversity and a higher frequency of ground stone items than 22IT623. The presence of drill cores and bead preforms suggest that the manufacture or modification of ground stone items were among the activities practiced at 22IT624. Other ground stone classes generally compare between the locales and most probably reflect a similar set(s) of manufacturing, maintenance or processing activities. There is a correlation between Level 8 in each site and the initial occurrence of implements associated with grinding, Mortars and Mullers.

Introduced Rock

22IT623: The Introduced Rock category contains items that do not conform to attributes of other lithic implement, reduction stage, or by-product categories. Materials ascribed to this category were classed on the basis of lithological, minerological, or morphological attributes. Some materials incorporated in this group may occur naturally and probably are not products of cultural activity.

Introduced Rock excavated from Levels 1.2 to 14 totaled 24.79 g or 24.8 kg (Appendix I). Table 12.11 presents the frequency distribution, expressed in percentages of rocks recovered from the site.

Ferruginous Sandstone is the most common material recovered. The major constituent of the Introduced Rock category is Ferruginous Sandstone. This material type forms 88.7% of the category (Table 12.11). Sandstone, Fire-cracked and other chert/chunks, Conglomerate and Cobble/Pebble form the next largest components of the Introduced Rock category. These materials each constituted between 1.8 to 2.7% of the population (Table 12.11). Other members of the Introduced Rock category each formed less than 1% of the sample from Block A.

The distribution (Table 12.11) of the Introduced Rock types indicates that the majority of material was concentrated in Levels 2 to 5 with the greatest quantities recovered from Level 4 and 3, respectively.

A second peak of material occurs in Level 8 which produced 9.6% of the population. This second peak is followed by a two-level cluster, Levels 6 and 7, which yielded 5.5 and 5.0% of the category sample. Level 10 produced 3.1% of the Introduced Rock population. Less than 1% of the Introduced Rock was recovered from each of the other excavated levels.

This distribution suggests, assuming that this category is a reflection of cultural activity, that occupation of the site was initiated in Level 9 or 8. Subsequent occupations or activity appear to be indicated in Level 7 and 6, 5, to 2, and 1.2.

The activities with which these raw materials are associated are uncertain. Presumably the sandstones may have been modified into tools or utilized for hot-rock cooking. Other materials may ave been employed as source of pigment whereas still others may have served as or been the by-products of a chipped stone industry.

22IT624: Introduced Rock recovered from Levels 1.2 through 13 totaled 38, 123 g (38.1 kg) (Appendix I). Table 12.12 presents a frequency distribution, expressed in percentages, of members of this category recovered from the test block.

Ferruginous Sandstone dominates the Introduced Rock category. This material accounts for 87.5% (33.3 kg) of the category population. Fire-cracked or other chert chunks, Sandstone, Comglomerate, and Cobble/Pebble types represent 3.4%, 3.3%, 1.7%, respectively, of the total amount recovered. All other materials subsumed in this category form less than 1% each of the total population.

Levels 3, 4, and 2 yielded the highest occurrences of materials, 29.7%, 27.5%, and 18.8% respectively, and appear to form a cluster. Levels above and below produced lower quantities of rocks and minerals. Level 5 and 6 cluster in the 6% range. Levels 7 and 8 produced materials totaling 4.0% and 1.5% respectively. Material from Level 9 and below equaled less than 1% per level. At the top of the stratigraphic column Level 1.1 yielded less than 0.1% and Level 1.2 produced 5.6% of the Introduced Rock sample.

Distribution of Introduced Rock suggests that cultural activity responsible for the introduction of some of these materials into the site, particularly the sandstones, occurred in Level 8 or, perhaps 9. Subsequent zones of occupation or activity appear to be indicated in Levels 7, 6 and 5, 4 to 2, and 1.2.

A comparison between the 22IT623 and 22IT624 indicate similar trends. Level 1.2 and 2 at each site show a decrease in the quantity of material recovered from levels immediately underlying. Levels 3 and 4 at both locales produced the largest quantities of materials. However, Level 4 yielded the largest quantity of material at 22IT623 whereas Level 3 did so at 22IT624.

Th- two sites begin to differentiate on a level by level basis with Level 6. Level 6, 22IT623, contains a higher proportion of Introduced Rock than the corresponding level in 22IT623. From Level 6 downward the levels do not appear to correspond (Tables 12.11 and 12.12).

No more on functional correlates or activities can be added beyond the brief discussion in the 22IT623 section.

BIOTIC AND FLORAL REMAINS

22IT623 and 22IT624

Samples were collected from control columns in each to provide data on faunal and floral remains distributed throughout the site matrix. Time did not permit examination of these materials.

All features were processed by flotation to recover any faunal or floral remains that might be contained within or adjacent to a feature. The results of the floral analysis can be found in the report of the further investigations of these sites (White 1983).

DISCUSSION AND RECOMMENDATIONS

DISCUSSION

The Beech (22IT623) and Oak (22IT624) sites probably formed initially as a levee resulting from overbank deposition of a stream formerly occupying the relic channel paralleling the east edge of locales. Overbank deposition originating from upstream (north) appears to have caused somewhat more rapid aggradation of the 22IT623 based on the thicker deposit of submidden fluvial sands. Cultural material recovered from the fluvial sands at a depth of circa 80 cm to 100 cm indicate that formation of the levee was in progress by the Middle Archaic period, c. 7,000 to 5,000 B.P., if not earlier. Subsequent cultural occupation(s) contributed to the aggradation of a sandy loam midden which extends to a depth of c. 80 cm below surface. This midden, in combination with associated pedo-and bioturbation, obscures any fluvial depositional or erosional episodes that may have contributed to the formation of the site since circa 5,000 years ago. Further we cannot be certain when the stream adjacent to the site was abandoned or cutoff. The presence of a somewhat diminished Late Woodland/Mississippian occupation in contrast to the preceding Middle Woodland habitation suggests that perhaps the character of site or its environs had or was changing. We suggest, based on the assumption that such occupations sites were situated on free flowing streams, that the adjacent channel was abandoned c. 1,000 years ago.

The components represented at the site can only be broadly defined, and are based on ceramics and hafted bifaces. A Late Woodland occupation(s) is represented on the basis a sparse number of shell tempered sherds a series of grog tempered types represented by Baytown Plain and Mulberry Creek Cord Marked. These ceramics indicate a Miller III (Jenkins 1979: 263-271) component is probably present. The recovery of a small amount of shell tempered pottery and the absence of Withers Fabric Marked ceramics indicate that only Early and Middle Miller III (Jenkins 1979: 267-268) components are represented at the Beech and Oak sites. Jenkins (1979:265-268) estimates that these ceramic complexes date c. A.D. 600-900 and c. A.D. 900-1100 in the UTV.

A Middle Woodland component(s) also is present based on the recovery of Turkey Paw Plain, Mulberry Creek Plain, Long Branch Fabric Marked, Furrs Cord Marked, and Saltillo Fabric Marked. These ceramics suggest that Miller I and Miller II (Jenkins 1979: 257-263) ceramic complexes are present and indicate occupations dating c. 100 B.C. to A.D. 300 and c. A.D. 300-600.

A Late Gulf Formational component(s) is indicated by decorated Alexander series ceramics. Jenkins (1979: 254) notes that this series appears in the central Tombigbee drainage about 500 B.C. The initial Alexander occupation at the Beech and Oak sites therefore may date a approximately the same time or until about 100 B.C.

A Middle Gulf Formational component(s) is marked by the presence of fiber tempered ceramics of the Wheeler series, the earliest form of pottery represented in the UTV (Jenkins 1979: 253). The occupation(s) characterized by fiber tempered ceramics are estimated to date c. 1,200-1,000 B.C. to 500 B.C. (Jenkins 1979: 254).

Occupations represented by ceramic complexes are confined principally to the upper 40 cm to 50 cm of both locales. Small amounts of variously tempered pottery, however, were recovered below this depth and the ceramic zone may actually extend to about 60 cm below the surface. While components have been identified on the basis of diagnostic ceramic types and while these ceramic complexes can be seriated generally, the various types are mixed vertically throughout the pottery-bearing midden deposits. This prevents accurately isolating and defining discrete occupations and their assemblages of material remains.

Pre-ceramic occupations or components are tentatively identified based on the presence of hafted bifaces. Levels 5 and 6 which lie between circa 50 cm and 70 cm below surface appear to contain Late Archaic period occupations based on the recovery of Little Bear Creek and Benton Stemmed projectile point/knives. Little Bear Creek projectile point/knives are inferred to date c. 2,500 B.C. to 1,000 B.C. (Ensor 1979: 164); Oakley and Futato (1975: 101) obtained dates of 1,650 ± 180 B.C. and 1,070 ± 75 B.C. from material in an occupation Little Bear Creek hafted bifaces.

Benton projectile point/knives are estimated to date in the range of about 5,800 B.P. to 2,500 B.P. (cf Ensor 1979: 165). Radiocarbon determinations from the nearby Poplar site, 22IT576, bracket a Benton component between about 3,900 B.C. and 3,600 B.C. These dates conform to similar components dated from other project sites, 22IT539 and 22IT590.

Two pits containing Late Archaic points may have originated in this zone. Feature 9, 22IT623, is associated with the "Little Bear Creek" component. Feature 1, 22IT624, may be affiliated with a post-Benton occupation since it contained a McIntire projectile point/knife in stratigraphic position below a Benton hafted biface.

Middle Archaic and, perhaps, "late" Early Archaic components are considered to be represented in Levels 7 through 9 and possibly 10 or between about 60 cm and 100 cm below surface. Morrow Mountain Sykes-White Springs, Beecham and Cypress Creek projectile point/knives were recovered from this zone. While the Cypress Creek projectile point/knife, which is thought to represent the earliest hafted biface of this group was recovered from Level 9, the remaining specimens were found in Levels 7 and 8 in questionable stratigraphic order at 22IT624 or in context with a presumed later projectile point/knife form, a McIntire, at 22IT623. The sample size and the poorly defined "late" Early and Middle Archaic period sequence, however, may be leading us to an incorrect interpretation about this mixing of "components." The occupations presumably represented by these points is estimated to date c. 8,000 B.P. to 6,000 B.P. The initial occurrence of identifiable ground stone grinding implements in association with

Sykes-White Springs projectile point/knives in Level 8 at both 22IT623 and 22IT624 suggests a Middle Archaic population was in residence at this time which dates to c. 7,000 - 6,000 B.P. (cf Ensor 1979: 168).

The possibility that a "late" Early Archaic component is present in Level 9 and below is base on single corner notched projectile point/knife, a small number of tool fragments and debitage. this "component" is considered to continue to Level 9 and possibly 10. In the absence of any firm set of Early Archaic period assemblage attributes and given the inferred time of occupation in the level above this "component" is estimated to date at c. 8,000 B.P. to 7,000 B.P.

The activities that can be generally inferred from the material remains of 22IT623 and 22IT624 have been briefly discribed in the section on cultural remains. These remains indicate a range of tasks associated that probably represent a series of procurement, processing, preparation, and manufacturing activities. A small number of features also were present and suggest construction or utilization of storage and disposal units and cooking facilities. The size and location of the sites generally suggests that these locales served a camps for folk exploiting the biotic resources of the surrounding floodplain. Whether these locales served as seasonal or more permanent base camps is open to question.

RECOMMENDATIONS

Additional investigation of the Beech and Oak sites are cautiously recommended to explore aspects of the Archaic period occupations. These investigations should focus on two principal areas, the environmental setting and the cultural record. We anticipate that the study of the natural setting and artifactual record of these sites will supplement the culture history of the Upper Tombigbee Valley.

The environmental sett'ng aspect of the investigations should center on the geomorphic character and the environmental processes affecting and effecting the site's locales. The focal point of this aspect of the investigation is the topographic location of the sites. The Beech and Oak locales occupy a levee. This is a unique topographic setting in terms of the cultural resource management studies being conducted in the UTV.

The investigation of the Beech and Oak sites provides an opportunity to collect and synthesize information on a topographic phenomenon, not previously investigated in the region, that was selected for habitation by prehistoric populations. The study of the physical characteristics of this topographic feature concomitant with the archaeological records will provide an opportunity to assess the quantitative and qualitative differences that may exist between the Beech and Oak sites and previously excavated sites occupying different topographic locales. This aspect of the research should permit refinement of questions pertaining to generation of statements on Archaic period settlement and subsistence patterns in the UTV.

The second general aspect for future investigation of the Beech and Oak sites should be the focus on the material remains employed to define the culture history of the Upper Tombigbee River Valley. Currently, identification of Archaic occupations, particularly those of the late phase(s), is not well established in the project area because of apparent temporal overlap of diagnostic artifact forms employed to key cultural affiliation. Without an adequate understanding of an area's culture sequence, the goal of determining the processual and systemic patterns that characterized extinct societies of the region simply is not possible because of faulty temporal/cultural constructs.

The Beech and Oak sites provide an opportunity to refine, if not establish, a segment of the UTV archaeological sequence by examining the material remains of these sites and focusing on the problem of temporal overlap of diagnostic forms. This problem may be addressed during the excavation because of the relatively thin or "light" occupations present at the Beech and Oak locales. This situation should reduce the amount of cultural mixing, thereby making component distinctions more apparent. If component attributes can be more firmly established because of reduced cultural activity in a locale(s), the probability increases that diagnostic analytic sets of material remains can be more rigidly defined.

Presuming that improved resolut of components can be accomplished by refinement of the diagnostic artifact attributes, study of the deposits and facilities associated within a culture component may provide additional insight into the functional and subsistence activities practiced. Late (terminal) Archaic period pits tentatively have been identified at the Beech and Oak locales. Few such features of this time depth have been encountered or recognized during the intensive excavation of Phase I sites. Like the clarification of diagnostic artifacts, additional definition and analysis of culturally identified features should permit synchronic and diachronic refinement of the local culture sequence.

In summary, intensive excavation of the Beech and Oak sites is recommended to investigate the Archaic occupations represented at these locales. The principal research objectives should be to study the natural setting of the sites to provide information on possible settlement and subsistence patterns operating in the UTV and to investigate material remains of the archaeological occupations to more fully define, synchronically and diachronically, the Archaic period culture history sequence that characterizes the region.

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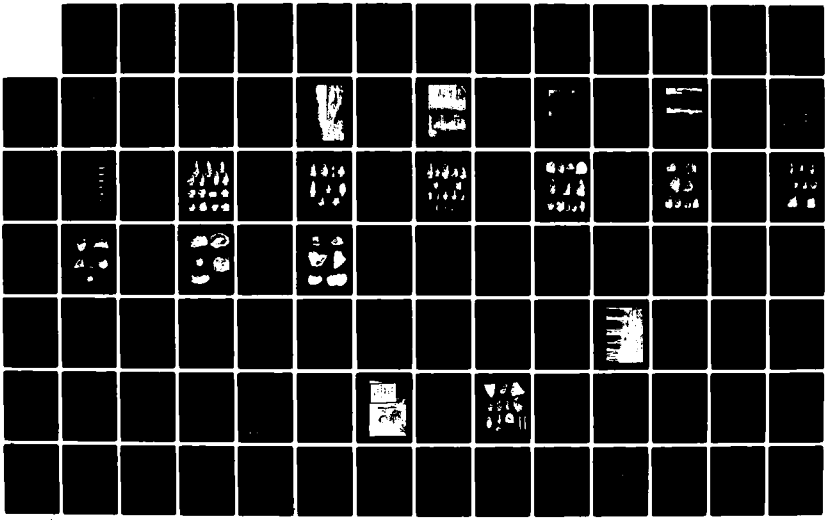

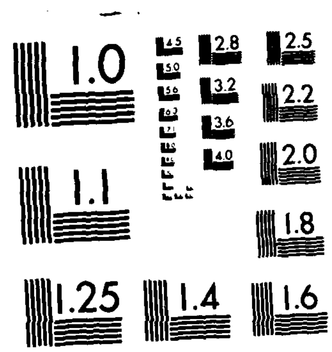

MICROCOPY RESOLUTION TEST CHART
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Table 12.1. Site 22IT623: Summary of Ceramic Types.

TYPE	NUMBER	PERCENT
Eroded Shell	1	0.16
Baytown Plain	10	1.62
Mulberry Creek Cord Marked	21	3.40
Eroded Grog	35	5.66
Turkey Paw Plain	1	0.16
Eroded Bone	7	1.13
Mulberry Creek Plain	1	0.16
Long Branch Fabric Marked	1	0.16
Eroded Limestone	60	9.71
Furrs Cord Marked	3	0.49
Saltillo Fabric Marked	55	8.90
Residual Sand Plain	38	6.15
Eroded Sand	288	46.60
Alexander Incised	6	0.97
Alexander Pinched	1	0.16
Columbus Punctate	1	0.16
Wheeler Plain	2	0.32
Wheeler Dentate Stamped	2	0.32
Eroded Fiber	85	13.75
TOTAL	618	100.0%

Table 12.2. Site 22IT623: Horizontal Distribution of Ceramic Class (in percentages).

Level(N)	MISS Shell	LTWD Grog	LTWD/ MDWD Bone	MDWD Lime/ Sand Diag	MDWD/ LTGF Sand Non/ Diag	MDGF Sand Diag	MDGF Fiber	Total
1.1 (0)	0	0	0	0	0	0	0	0
1.2 (13)	0	61.54	7.69	7.69	15.38	0	7.69	100
2 (294)	0.34	15.99	2.38	13.95	58.16	1.02	8.16	100
3 (244)	0	2.87	0	25.41	48.77	2.05	20.90	100
4 (51)	0	5.88	0	23.53	52.94	0	17.65	100
5 (14)	0	7.14	0	28.57	35.71	0	28.57	100
6 (0)	0	0	0	0	0	0	0	0
7 (1)	0	0	0	0	100.00	0	0	100
8 (1)	0	0	0	0	100.00	0	0	100
9 (0)	0	0	0	0	0	0	0	0
10 (0)	0	0	0	0	0	0	0	0
11 (0)	0	0	0	0	0	0	0	0
12 (0)	0	0	0	0	0	0	0	0
13 (0)	0	0	0	0	0	0	0	0
14 (0)	0	0	0	0	0	0	0	0
15 (0)	0	0	0	0	0	0	0	0
All(618)	0.16	10.68	1.29	19.41	52.75	1.29	14.40	100

MISS = Mississippian, MDWD/LTGF = Middle Woodland/Late Gulf Form.
LTWD = Late Woodland, LTWD/MDWD = Late Woodland/Early Woodland
MDWD = Middle Woodland, MDGF = Middle Gulf Formational

Lime/Sand Diag = Limestone and Sandstone Diagnostic

Table 12.3. Site 22IT623: Vertical Distribution of Ceramic Class (in percentages).

Level (N)	MISS Shell (1)	LTWD Grog (66)	LTWD/ MDWD Bone (8)	MDWD Lime/ Sand Diag (120)	MDWD/ LTGF Sand Non/ Diag (326)	MDGF Sand Diag (8)	MDGF Fiber (89)	All (618)
1.1	0	0	0	0	0	0	0	0
1.2	0	12.12	12.50	0.83	0.61	0	1.12	2.10
2	100.0	71.21	87.50	34.17	52.45	37.50	26.97	47.57
3	0	10.61	0	51.67	36.50	62.50	57.30	39.48
4	0	4.55	0	10.00	8.28	0	10.11	8.25
5	0	1.52	0	3.33	1.53	0	4.49	2.27
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0.31	0	0	0.16
8	0	0	0	0	0.31	0	0	0.16
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 12.4. Site 22IT624: Summary of Ceramic Types.

TYPE	NUMBER	PERCENT
Decorated Shell	2	0.16
Eroded Shell	3	0.24
Baytown Plain	45	3.61
Mulberry Creek Cord Marked	43	3.45
Grog-Other	1	0.08
Eroded Grog	76	6.09
Turkey Paw Plain	2	0.16
Eroded Bone	3	0.24
Mulberry Creek Plain	97	7.78
Limestone-Other	1	0.08
Eroded Limestone	57	4.57
Furrs Cord Marked	10	0.80
Saltillo Fabric Marked	47	3.77
Residual Sand Plain	80	6.42
Eroded Sand	683	54.77
Alexander Incised	9	0.72
Alexander Pinched	5	0.40
Alexander Incised/Pinched	1	0.08
Alexander Incised/Punctated	2	0.16
Columbus Punctate	2	0.16
Wheeler Plain	22	1.76
Wheeler Dentate Stamped	2	0.16
Eroded Fiber	54	4.33
TOTAL	1,247	100.0%

Table 12.5. Site 22IT624: Horizontal Distribution of Ceramic Class (in percentages).

Level(N)	MISS Shell	LTWD Grog	LTWD/ MDWD Bone	MDWD Lime/ Sand Diag	MDWD/ LTGF Sand Non/ Diag	MDGF Sand Diag	MDGF Fiber	Total
1.1 (2)	0	50.00	0	0	50.00	0	0	100
1.2(199)	1.01	10.55	1.01	18.09	61.31	2.01	6.03	100
2 (634)	0.32	18.93	0.47	15.14	60.73	0.95	3.47	100
3 (302)	0	5.96	0	18.21	62.58	2.65	10.60	100
4 (87)	0	5.75	0	27.59	56.32	1.15	9.20	100
5 (12)	0	0	0	0	66.67	0	33.33	100
6 (6)	0	0	0	0	100.00	0	0	100
7 (5)	20.00	0	0	20.00	60.00	0	0	100
All (1247)	0.40	13.23	0.40	17.00	61.19	1.52	6.26	100

MISS = Mississippian, MDWD/LTGF = Middle Woodland/Late Gulf Form.
LTWD = Late Woodland, LTWD/MDWD = Late Woodland/Early Woodland
MDWD = Middle Woodland, MDGF = Middle Gulf Formational

Lime/Sand Diag = Limestone and Sandstone Diagnostic

Table 12.6. Site 22IT624: Vertical Distribution of Ceramic Class (in percentages).

Level (N)	MISS Shell (5)	LTWD Grog (165)	LTWD/ MDWD Bone (5)	MDWD Lime/ Sand Diag (212)	MDWD/ LTGF Sand Non/ Diag (763)	MDGF Sand Diag (19)	MDGF Fiber (78)	All (1247)
1.1	0	0.61	0	0	0.13	0	0	0.16
1.2	40.00	12.73	40.00	16.98	15.99	21.05	15.38	15.96
2	40.00	72.33	60.00	45.28	50.46	31.58	28.21	50.84
3	0	10.91	0	25.94	24.77	42.11	41.03	24.22
4	0	3.03	0	11.32	6.42	5.26	10.26	6.98
5	0	0	0	0	1.05	0	5.13	0.96
6	0	0	0	0	0.79	0	0	0.48
7	20.00	0	0	0.47	0.39	0	0	0.40
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 12.7. Site 22IT623: Non-Utilized Debitage by Size and Raw Material.

Type	1-Inch		.5-Inch		.25-Inch		Prismatic Blades	
	N	%	N	%	N	%	N	%
Bangor, Blue-Green					1	0.02		
Bangor, Fossil.			1	0.12	3	0.07		
Camden, Ht.	9	42.86	623	75.52	3,249	76.18	3	60.00
Camden, Unht.	5	23.81	101	12.24	425	9.96		
Ft. Payne			18	2.18	322	7.55		
Novaculite					6	0.14		
Pickwick			6	0.73	5	0.12		
Tusca., Ht.			3	0.36	32	0.75		
Tusca., Unht.			4	0.48	16	0.38		
Conglomerate	4	19.05	28	3.39	46	1.08	2	40 .00
Hematite					3	0.07		
Quartzite	1	4.76	1	0.12	6	0.14		
Quartzite, Talht.					2	0.05		
Sandstone	1	4.76			3	0.07		
Sandstone, Ferr.	1	4.76	34	4.12	71	1.66		
Unidentified			6	0.73	75	1.76		
Total	21	100.0%	825	100.0%	4,265	100.0%	5	100.0%

Table 12.8. Site 22IT623: Distribution of 0.25-inch Debitage by Material Types.

LEVEL	CAMDEN, HT	CAMDEN, UNHT	FT. PAYNE	BANGOR	BANGOR, FOSL.	NOVACULITE	PICKWICK	TUSCALOOSA, HT	TUSCALOOSA, UNHT	CONGLOMERATE	HEMATITE	QUARTZITE	TALLAHATTA QUARTZITE	SANDSTONE	FERR. SANDSTONE	UNIDENT.	LEVEL TOTALS %	LEVEL TOTALS N
1.1																	.00	0
1.2	84.43	2.94	7.84												2.94	1.96	2.39	102
2	78.26	11.63	3.66		0.11	0.32		1.61		0.54		0.11	0.22		0.54	3.01	21.78	929
3	79.32	7.03	9.68	0.08	0.08		0.08	0.58	0.25	0.33					0.99	1.57	28.35	1,209
4	76.35	10.00	8.12			0.12	0.24	1.06		1.29	0.12	0.35		0.12	0.94	1.29	19.93	850
5	75.54	8.22	9.20		0.20	0.20		0.20	0.98	0.59	0.20	0.70		0.20	2.94	1.37	11.98	511
6.	70.12	14.52	6.22			0.41	0.83		0.41	1.66		0.41			4.15	1.24	5.65	241
7	62.07	15.86	6.90						2.07	7.57					5.52		3.40	145
8	66.87	18.62	3.45						2.07	3.45					2.76	2.76	3.40	145
9	65.79	17.10	11.84							1.32					3.95		1.78	76
10	50.09	9.09	9.09						0.45	9.09	0.45					0.45	0.52	22
11	70.59	5.88	17.65											5.88			0.40	17
12	54.55	9.09	18.18												18.18		0.26	11
13	75.00														25.00		0.09	4
14	100.00																0.07	3
15																	.00	0
TYPE TOTALS																		
N	3,249	425	322	1	3	6	5	32	16	46	3	6	2	3	71	75		4,265
%	76.18	9.96	7.55	0.02	0.07	0.14	0.12	0.75	0.38	1.08	0.07	0.14	0.05	0.07	1.66	1.76	100.0%	

Table 12.9. Site 22IT624: Non-Utilized Debitage by Size and Raw Material.

Type	1-Inch		.5-Inch		.25-Inch		Prismatic Blades	
	N	%	N	%	N	%	N	%
Bangor, Blue-Green			1	0.10	1	0.01		
Bangor, Fossil.			2	0.20	45	0.66		
Camden, Ht.	35	63.64	629	63.99	4,555	66.46		
Camden, Unht.	9	16.36	154	15.67	815	11.89		
Ft. Payne			80	8.14	855	12.47		
Ft. Payne Fossil.			2	0.20	17	0.25		
Novaculite					13	0.19		
Oolitic					3	0.04		
Pickwick	1	1.82	7	0.71	14	0.20		
Tusca., Ht.			1	0.10	33	0.48		
Tusca., Unht.			5	0.51	16	0.23		
Conglomerate	7	12.72	45	4.58	82	1.20		
Hematite					2	0.03		
Petrified Wood					4	0.06		
Quartzite			1	0.10	17	0.25		
Quartzite, Talht.			1	0.10	2	0.03		
Sandstone			2	0.20	2	0.03		
Sandstone, Ferr.	3	5.45	37	3.76	161	2.35		
Siltstone			1	0.10	1	0.01		
Unidentified			15	1.53	216	3.15		
Total	55	100.0%	983	100.0%	6,854	100.0%	0	

Table 12.10. Site 22IT624: Distribution of 0.25-inch Debitage by Material Types.

LEVEL	CAMDEN, HT	CAMDEN, UNHT	FT. PAYNE	FT. PAYNE, FOSL.	BANGOR	BANGOR, FOSL.	NOVACULITE	OOLITIC	PICKWICK	TUSCALOOSA, HT	TUSCALOOSA, UNHT	CONGLOMERATE	HEMATITE	PETRIFIED WOOD	QUARTZITE	TALLAHATTA QUARTZITE	SANDSTONE	FERR. SANDSTONE	SILTSTONE	UNIDENT.	LEVEL TOTALS %	LEVEL TOTALS N
1.1	63.6	22.7							4.6								4.6			4.6	0.3	22
1.2	81.8	6.3	6.5			0.4	0.2		0.4	0.4	0.1	0.6			1.0			0.8		1.4	7.4	506
2	69.9	9.4	10.5	0.1		0.4	0.1	0.1	0.4	0.7	0.4	1.5			0.2			2.8		3.5	24.2	1,600
3	66.7	10.9	12.1	0.1	0.1	1.3	0.2	0.1		0.4		1.3	0.1	0.2	0.1		0.1	2.8		3.8	30.8	2,10[illegible]
4	63.8	12.4	16.6			0.4	2.2		0.2	0.2	0.07	1.3			0.2	0.1		1.6	0.1	2.9	19.5	1,338
5	56.3	19.2	16.3	1.1		0.2	0.3		0.2	0.6	0.75	0.5	0.2		0.5	0.2		1.4		2.6	9.7	662
6	64.2	12.1	12.8	2.2		0.3	0.6		0.3	0.3		0.3			0.3			2.9		3.5	4.6	313
7	52.8	26.0	12.6			0.9				1.6		3.2						2.4		0.8	1.9	127
8	50.0	21.0	3.3							1.6	3.3	3.3						11.5		4.8	0.9	62
9	62.5	30.0	2.5									2.5									0.6	40
10	53.9	30.8	15.4																		0.2	13
11	100.0																				<0.1	1
12	100.0																				<0.1	1
13-18																					0.0	0
TYPE TOTALS																						
N	4,555	815	855	17	1	45	13	3	14	33	16	82	2	4	17	2	2	161	1	216		6,854
%	66.5	11.9	12.5	0.3	0.1	0.7	0.2	0.1	0.2	0.5	0.2	1.2	0.1	0.1	0.3	0.1	0.1	2.4	0.1	3.2	100%	

Table 12.11. Site 22IT623. Distribution of Introduced Rock by Level and Material Types.

LEVEL	FC CHERT/ CHUNK	COBBLE/ PEBBLE	CONGLOMERATE	CRINOID	HEMATITE	LIMESTONE	LIMONITE	MANGANESE	OCHRE	PETRIFIED WOOD	SANDSTONE	FERR. SANDSTONE	UNIDENT.	LEVEL TOTALS %	LEVEL TOTALS N
1.1														.00	0
1.2	3.57	2.98	0.60								0.60	92.26		0.68	168
2	1.79	1.83	0.84		0.39		0.04		0.04	0.35	3.51	91.21		11.48	2,845
3	2.41	1.35	2.31		0.34		0.05		0.05	1.11	4.46	87.78	0.15	23.94	5,936
4	2.25	0.80	0.68		0.20		0.08		0.20	0.56	1.84	93.39		28.68	7,109
5	3.03	1.72	0.44	0.04	0.95		0.80	0.04	0.07	0.95	3.36	88.60		11.04	2,736
6	0.95	2.48	1.17		1.17		1.31		1.24	1.09	0.87	89.73		5.54	1,373
7	0.80	1.93	3.38		0.80		3.70		1.05	0.24	1.77	86.32		5.01	1,243
8	0.38	1.05	11.13		1.34		0.34		0.46	0.34	0.38	84.54	0.04	9.60	2,380
9	12.60	13.12	0.39		0.52		0.39		0.39	0.39	5.91	66.27		3.07	762
10	1.11	3.33			1.11		1.11				4.44	88.89		0.36	90
11		1.20						62.65				36.14		0.33	83
12	68.97						20.69					10.34		0.12	29
13					5.88					5.88		88.24		0.07	17
14	5.00	65.00				5.00						25.00		0.08	20
15														.00	0
TYPE TOTALS															
%	2.39	1.78	2.21	0.004	0.54	0.004	0.46	0.21	0.26	0.69	2.75	88.65	0.04	100.03	
N	593	441	548	1	135	1	114	53	64	172	681	21,978	10		24,791

Table 12.12. Site 22IT624: Distribution of Introduced Rock by Level and Material Types.

LEVEL	FC CHERT/ CHUNK	COBBLE/ PEBBLE	CONGLOMERATE	CRINOID	HEMATITE	LIMONITE	OCHRE	PETRIFIED WOOD	QUARTZITE	TALLAHATTA QUARTZITE	SANDSTONE	FERR. SANDSTONE	SANDSTONE CONCRET.	LEVEL TOTALS %	N
1.1										10.00		90.00		0.03	10
1.2	5.26	0.67	2.73		0.46	0.15		0.77			4.90	85.05		5.09	1,940
2	3.65	0.92	2.38		0.57	0.07	0.01	1.54		0.28	5.51	85.06		18.76	7,147
3	2.49	1.16	0.30		0.42	0.15	0.02	0.25		0.13	3.45	91.59	0.06	29.68	11,306
4	3.05	0.54	1.31		1.03	0.03		0.60			2.77	90.67		27.49	10,474
5	8.31	2.62	11.28	0.04	0.92	0.35	0.39	0.13	0.13	0.22	1.40	74.20		6.00	2,287
6	3.66	3.05			0.96	0.52	0.08	2.41		0.60	11.13	77.57		6.53	2,488
7	2.08	4.16	0.06		1.17	0.32	0.13	0.45	0.06		2.92	88.63		4.04	1,539
8	4.47	3.32			8.77	3.32	0.18	0.36			0.36	79.43		1.47	559
9	2.02	3.37	0.34		4.04	0.67	0.67	0.34				88.55		0.78	297
10		5.88			5.88	5.88						82.35		0.04	17
11		22.22			11.11						11.11	55.56		0.02	9
12	4.17	4.17										91.67		0.06	24
13		100.00												0.01	2
14-18															0
TYPE TOTALS															
%	3.43	1.31	1.72	0.003	0.87	0.20	0.05	0.76	0.01	0.15	4.01	87.48	0.02	100.0%	
N	1,308	501	654	1	331	75	18	289	4	56	1,526	33,329	7		38,0[illegible]

Figure 12.1

Sites 22IT623 and 22IT624: Waterway location map

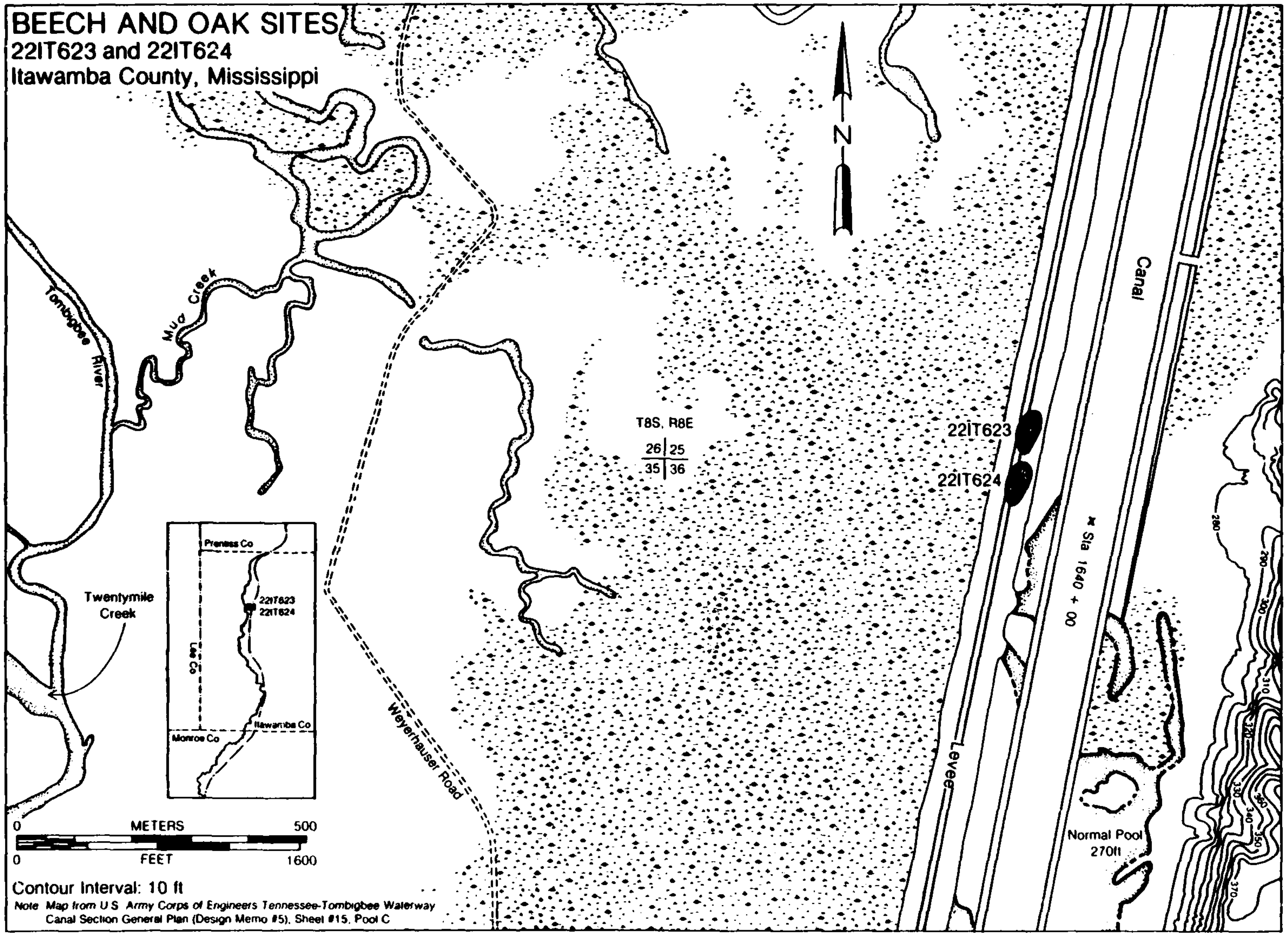
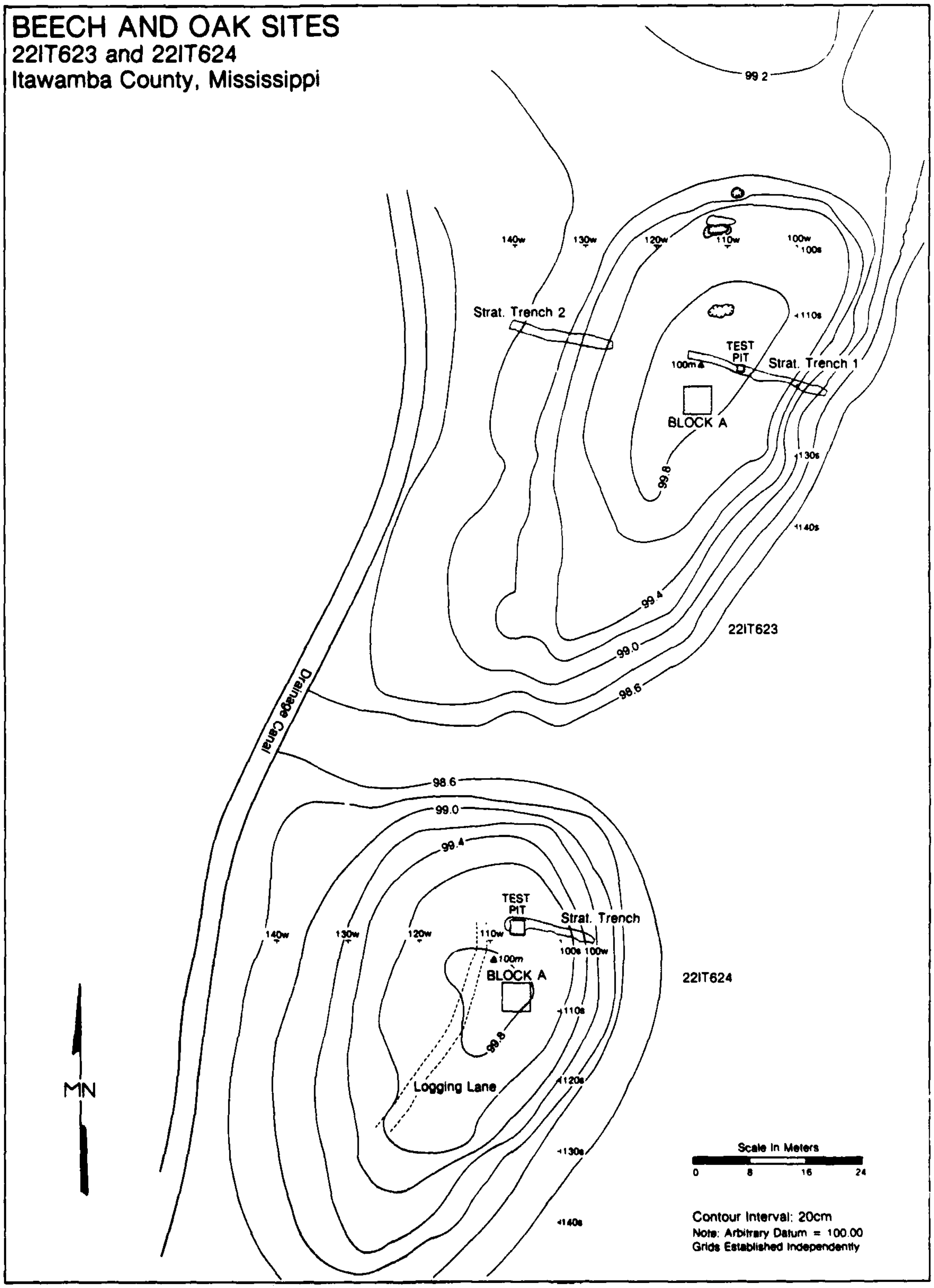

BEECH AND OAK SITES
22IT623 and 22IT624
Itawamba County, Mississippi
N
Canal
Sta 1640 + 00
Levee
22IT623
22IT624
T8S, R8E
26 25
35 36
Normal Pool
270ft
280
290
300
310
320
330
340
350
360
370
Mud Creek
Tombigbee River
Weyerhauser Road
Twentymile Creek
Prentiss Co
Lee Co
Itawamba Co
Monroe Co
0
METERS
500
0
FEET
1600
Contour Interval: 10 ft
Note Map from U.S. Army Corps of Engineers Tennessee-Tombigbee Waterway Canal Section General Plan (Design Memo #5), Sheet #15, Pool C

Figure 12.2

Sites 22IT623 and 22IT624: Topographic map and excavation plan


BEECH AND OAK SITES
22IT623 and 22IT624
Itawamba County, Mississippi
99.2
140w
130w
120w
110w
100w
100s
Strat. Trench 2
110s
TEST PIT
100m
Strat. Trench 1
BLOCK A
130s
99.8
140s
99.4
22IT623
99.0
98.6
Drainage Canal
98.6
99.0
99.4
TEST PIT
Strat. Trench
140w
130w
120w
110w
100s 100w
100m
BLOCK A
22IT624
110s
99.8
MN
Logging Lane
120s
Scale in Meters
0
8
16
24
130s
Contour Interval: 20cm
Note: Arbitrary Datum = 100.00
Grids Established Independently
140s

12.51

Figure 12.3

Sites 22IT623 and 22IT624: General view from northeast

12 53

Figure 12.4

Site 22IT623: General site surface looking north

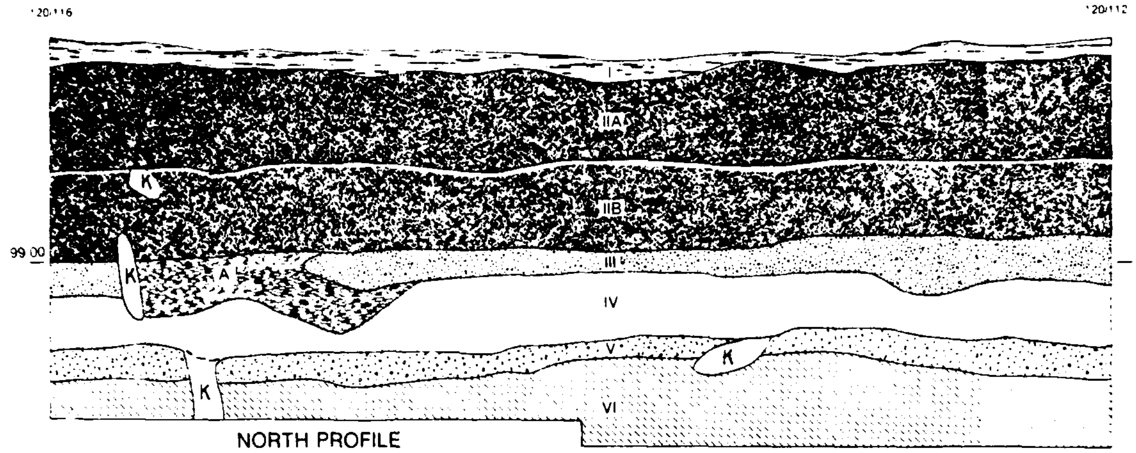
Figure 12.5

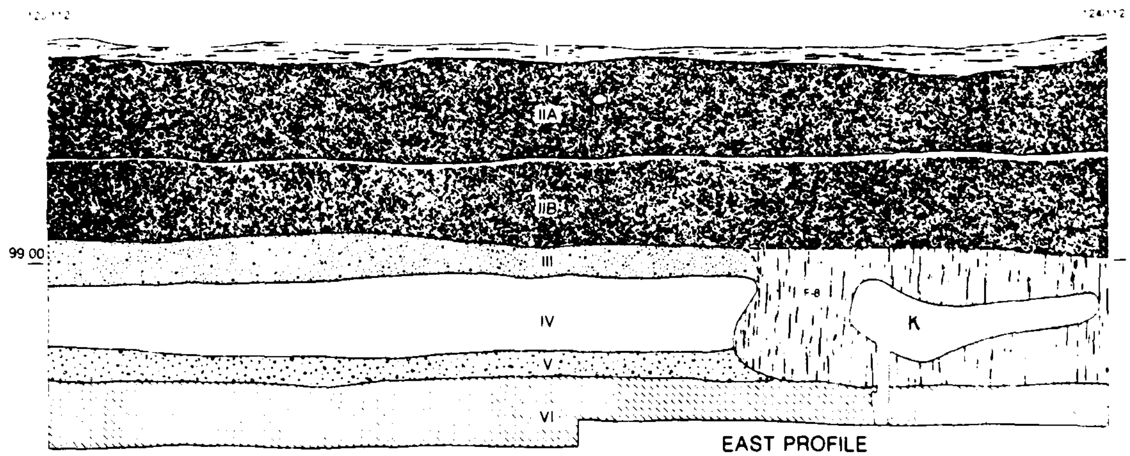
Site 22IT624: General site surface looking south

12-55

Figure 12.6

Site 22IT623: Stratigraphic zones

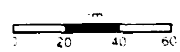




22IT623

BLOCK A (120s/112w)

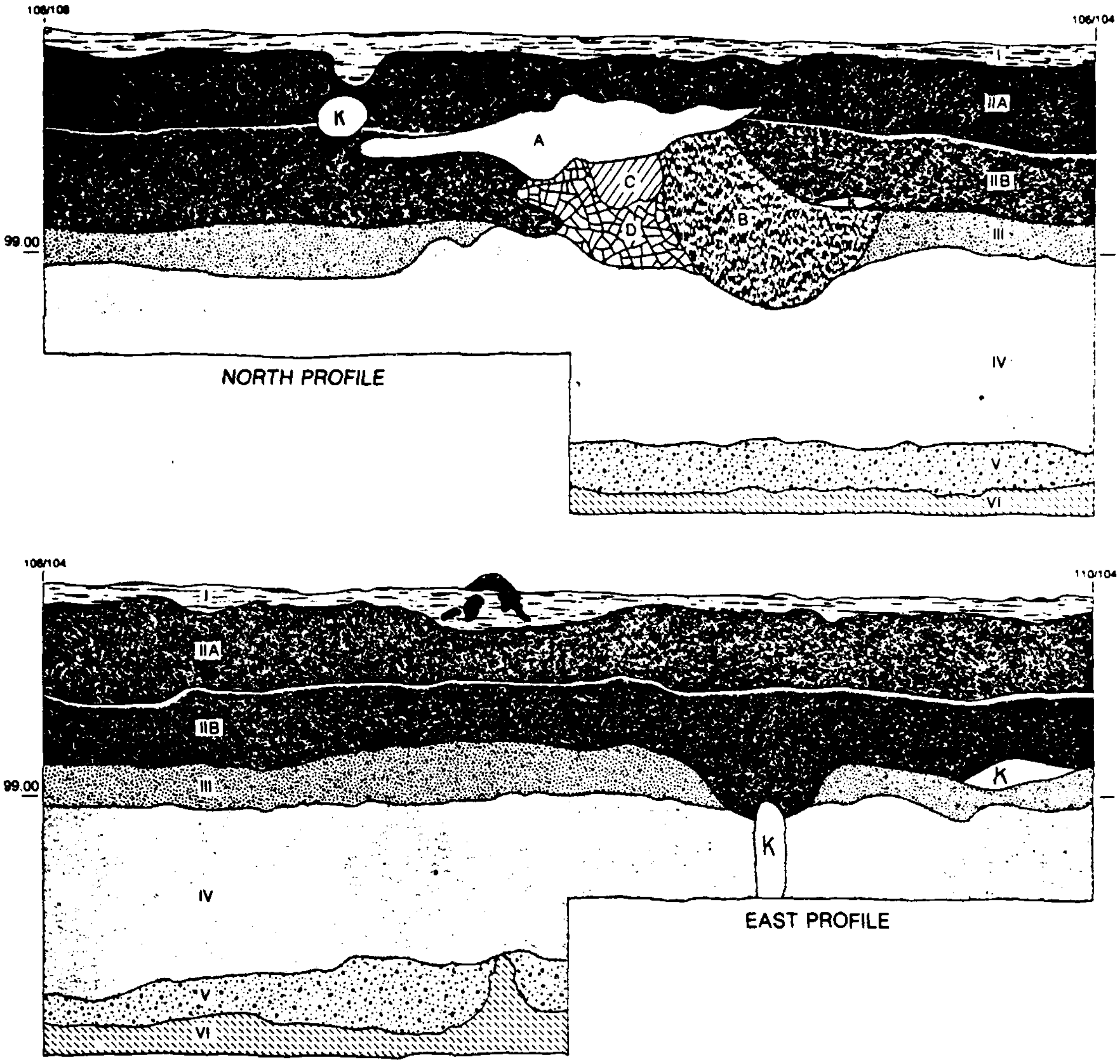
I.	Dark reddish brown (5YR 2.5/2) sandy loam	
IIA.	Dark reddish brown (5YR 3/2) sandy loam.	
IIB.	Dark reddish brown (5YR 3/4) sandy loam.	
III.	Reddish brown (5YR 4/3) loamy sand.	
IV.	Yellowish brown (10YR 5/8) loamy sand mottled with very pale brown (10YR 8/4).	
V.	Dark yellowish brown (10YR 4/4) sandy loam.	
VI.	Yellowish brown (10YR 5/8) loamy sand mottled with light gray-gray (5YR 6/1) gley.	
A.	Dark reddish brown (5YR 3/4) loamy sand mottled with yellow (10YR 7/6) and yellowish brown (10YR 5/4) fine sand and black (5YR 2.5/1) manganese staining.	
K	Krotovina	



12.57

Figure 12.7

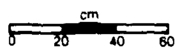
Site 22IT624: Stratigraphic zones



22IT624

BLOCK A (106s/104w)

- I. Dark reddish brown (5YR 2.5/2) sandy loam.
- IIA. Dark reddish brown (5YR 3/2) sandy loam.
- IIB. Dark reddish brown (5YR 3/4) sandy loam.
- III. Brown-dark brown (7.5YR 4/4) loamy sand.
- IV. Yellowish brown (10YR 5/8) loamy sand mottled with very pale brown (10YR 8/4).
- V. Dark yellowish brown (10YR 3/4) sandy loam.
- VI. Yellowish brown (10YR 5/8) loamy sand mottled with light gray-gray (5YR 6/1) gley.
- A. Dark brown (7.5YR 4/4) sandy loam mottled with pinkish gray-reddish yellow (7.5YR 7/4).
- B. Brown-dark brown (7YR 4/4) sandy loam.
- C. Very pale (10YR 7/3) sandy loam.
- D. Pale brown (10YR 6/3) loamy sand mottled with many dark brown (7.5YR 3/2) casts.
- K Krotovina

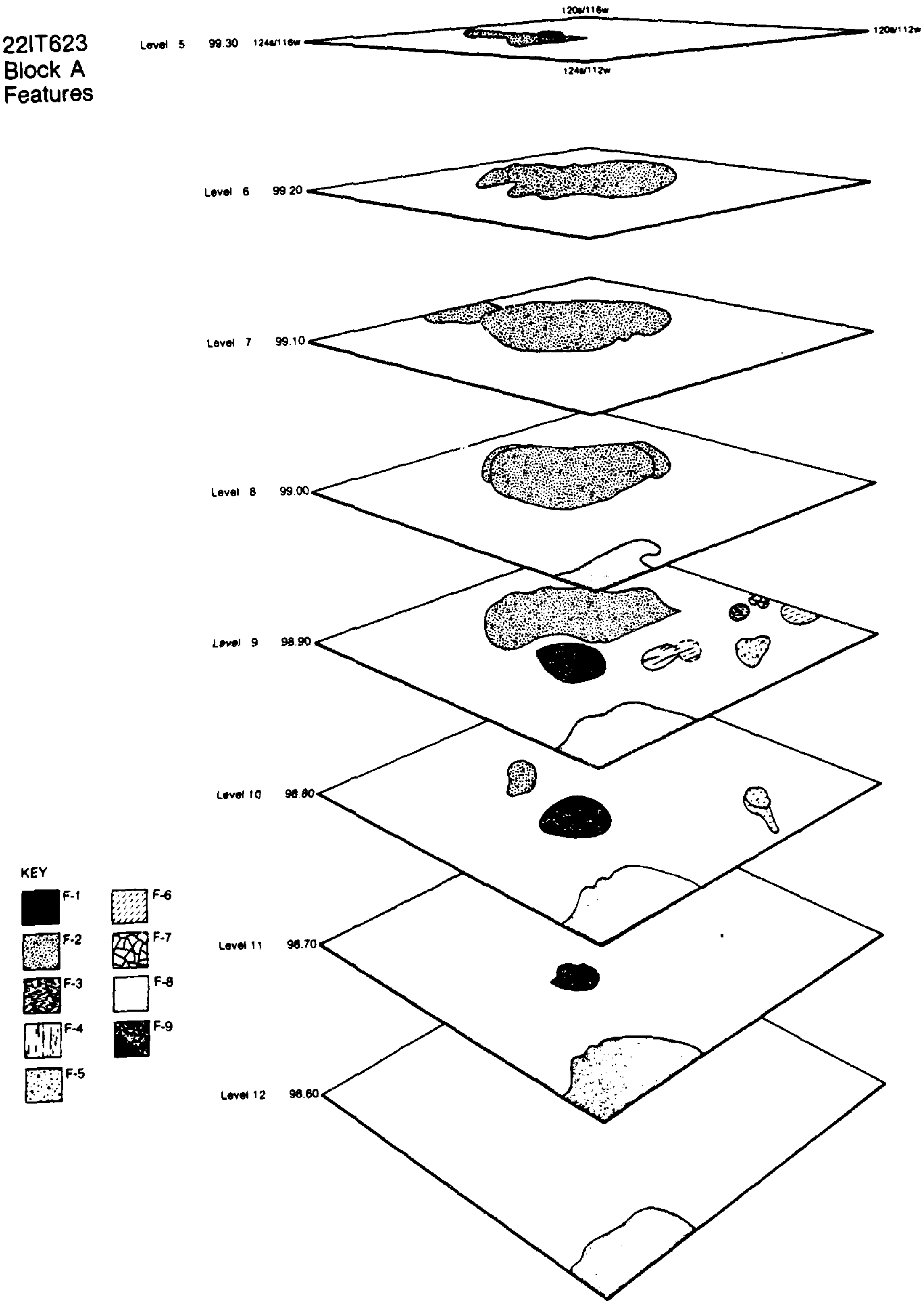


12.:1

Figure 12.8

Site 22IT623: Block A features

22IT623
Block A
Features



12, 61

Figure 12.9

Site 22IT624: Block A features

22IT624
Block A
Features

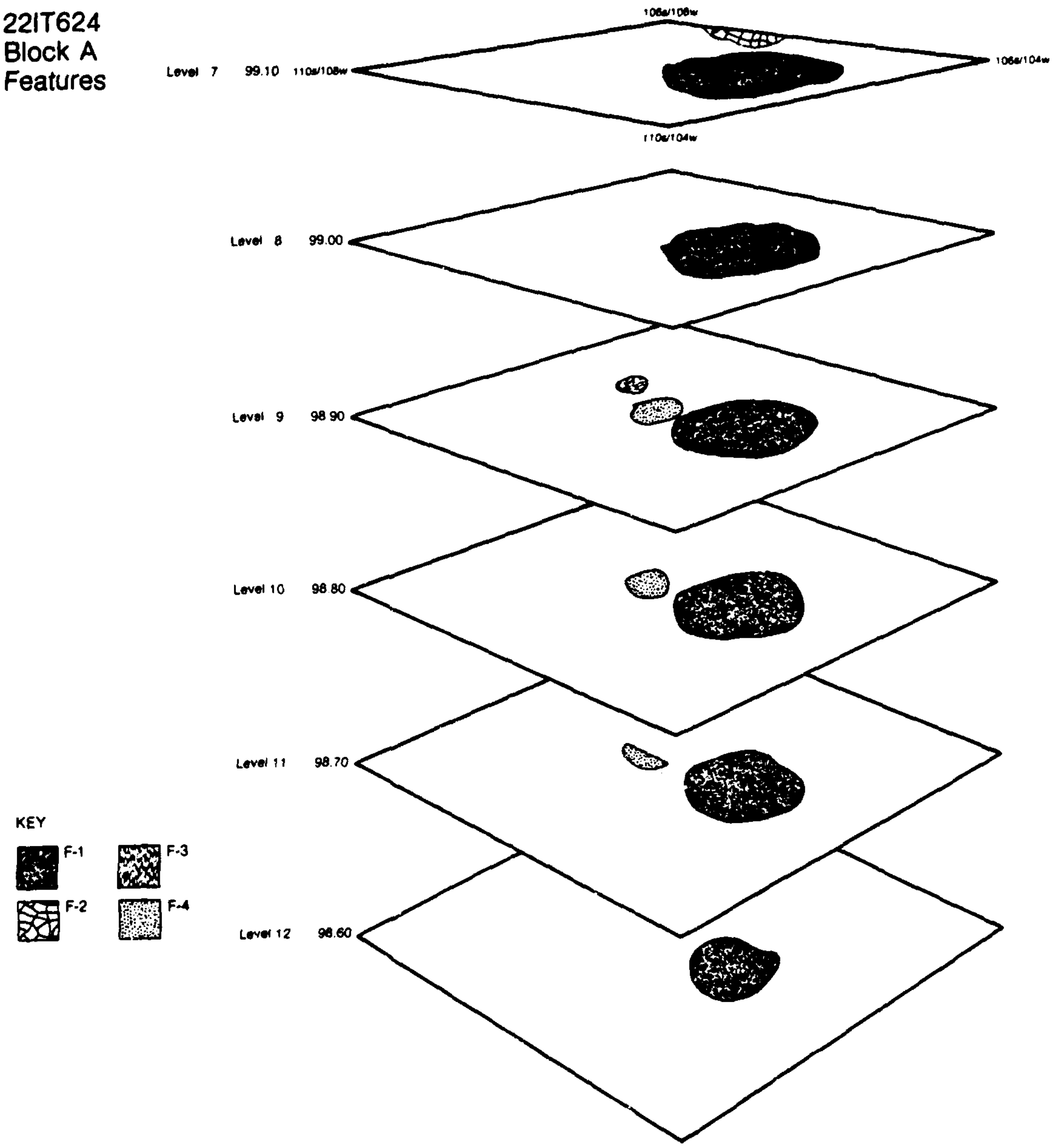
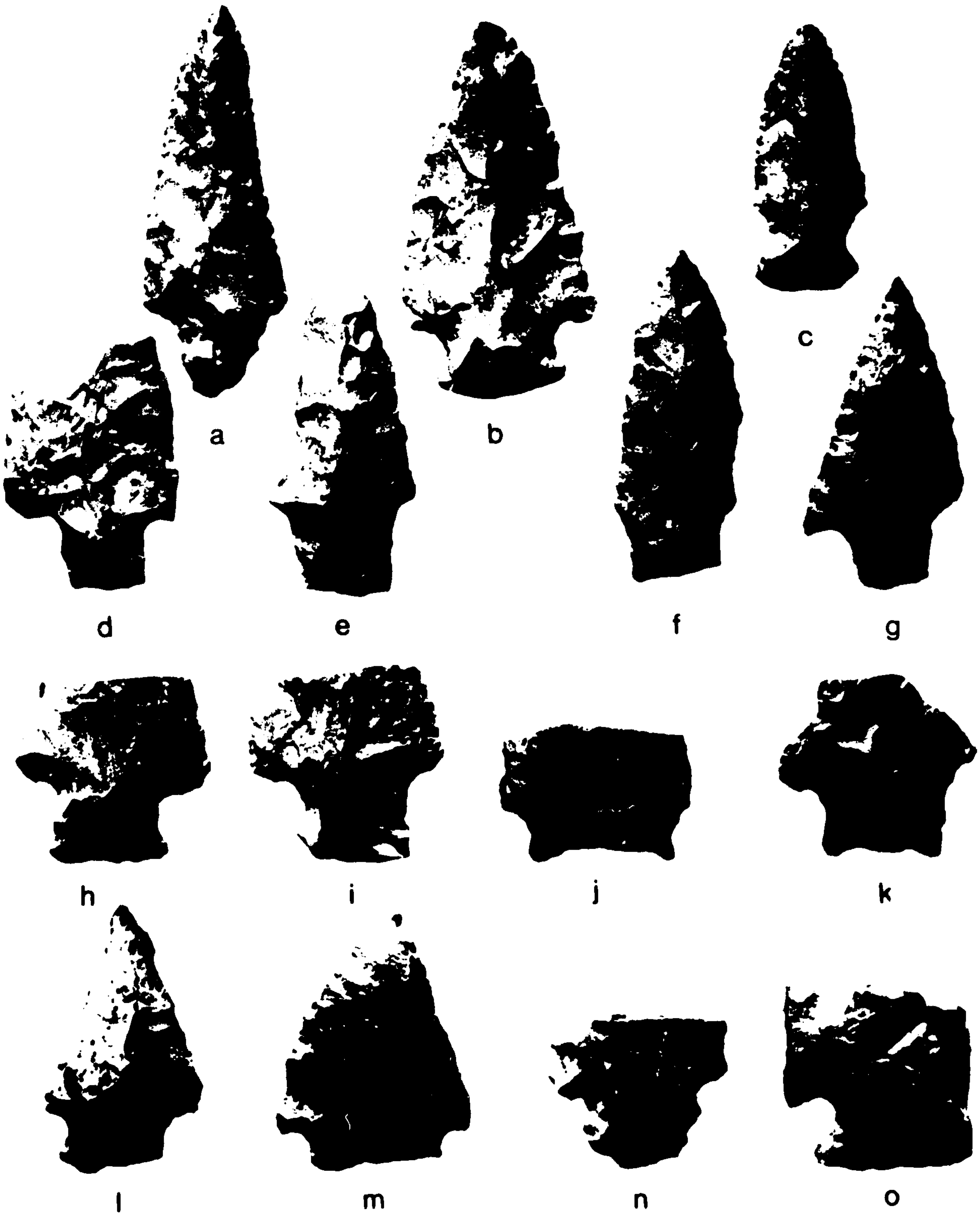


Figure 12.10

Site 22IT623: Selected Projectile Point/Knives

a. Gary (263-1)
b. Flint Creek (127-62)
c. Flint Creek (116-57)
d. Little Bear Creek (120-24)
e. Little Bear Creek (122-1)
f. Little Bear Creek (259-1)
g. Little Bear Creek (260-1)
h. Little Bear Creek (125-80)
i. Little Bear Creek (131-1)
j. Benton Short Stem (143-15)
k. Benton Short Stem (167-1)
l. McIntire (215-1)
m. Sykes/White Springs (216-2)
n. Residual Stemmed (213-1)
o. Cypress Creek (227-1)

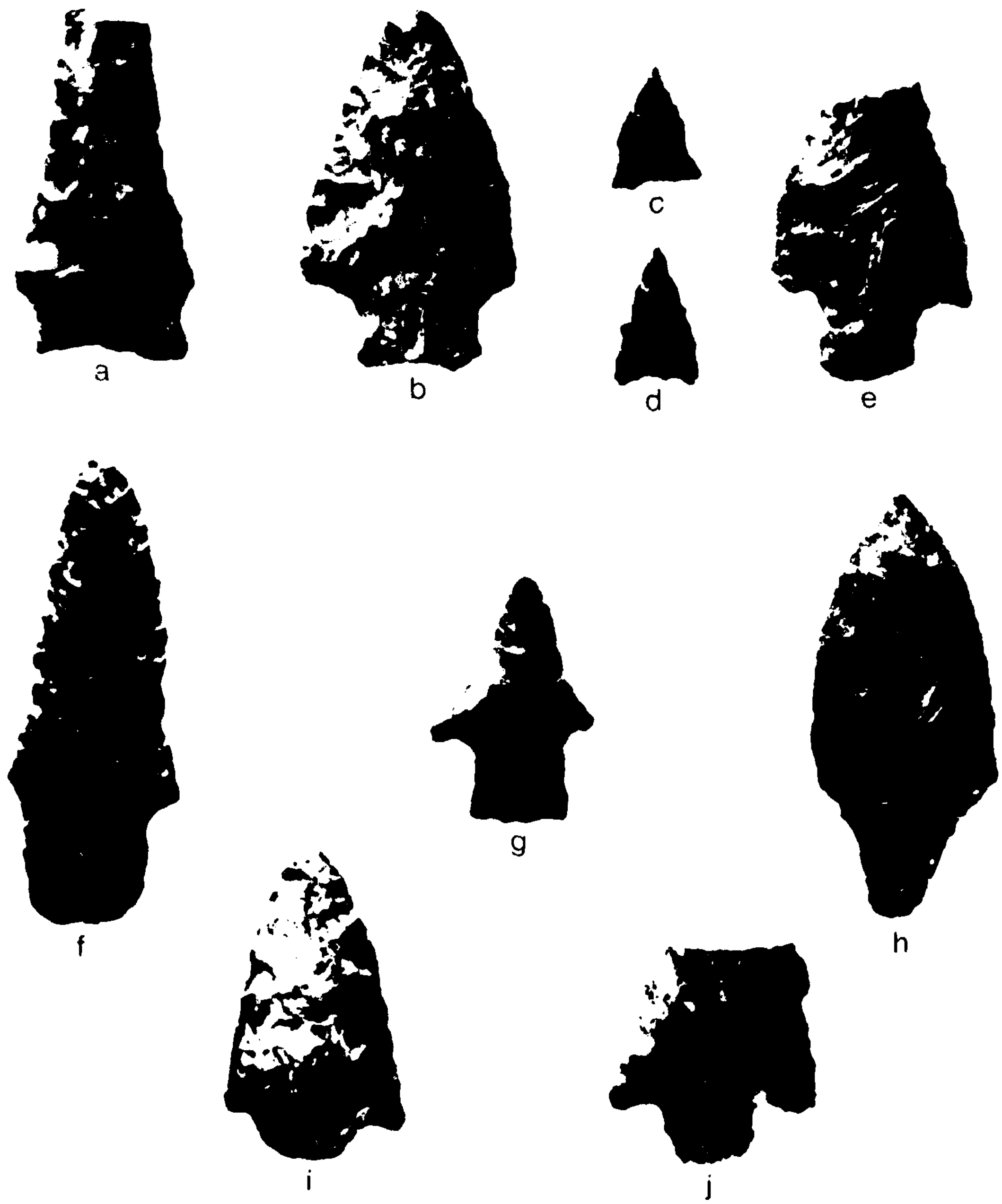


12.65

Figure 12.11

Site 22IT624: Selected Projectile Point/Knives

a. Benton Short Stemmed (215A-1)
b. McIntire (240)
c. Late Woodland/Mississippian Triangular (112-178)
d. Late Woodland/Mississippian Triangular (100-3)
e. Flint Creek (140-1)
f. Little Bear Creek (143-26)
g. Little Bear Creek (164-1)
h. Gary (126-53)
i. Morrow Mountain (151-1)
j. Beachum (199-1)



12.67

Figure 12.12

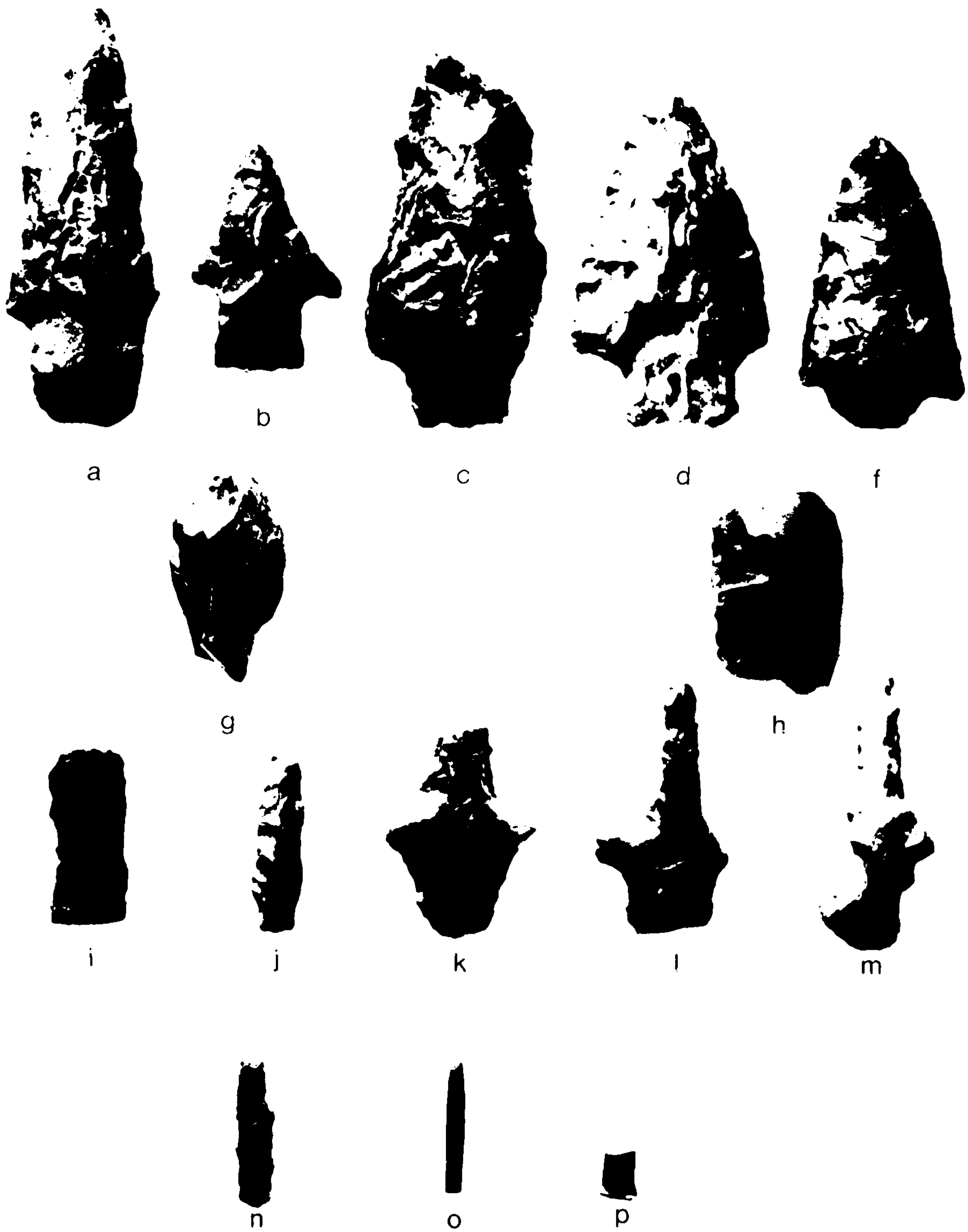
Site 22IT624: Selected Projectile Point/Knives, Scrapers, Drills, and Ground Stone Tools

Projectile Point/Knives
- a. Little Bear Creek (143-26)
- b. Little Bear Creek (164-1)
- c. Little Bear Creek (188-1)
- d. McIntire (240-1)
- f. Morrow Mountain (151-1)

Scrapers
- g. Uniface Scraper (164-5)
- h. Uniface Side Scraper (197-2)

Drills
- i. Shaft Drill (112-185)
- j. Shaft Drill (246-3)
- k. Stemmed Drill (161-3)
- l. Stemmed Drill (121-59)
- m. Stemmed Drill (114-184)
- n. Microlith (124-35)

Ground Stone
- o. Awl (154-5)
- p. Drill Core (152-8)



12.69

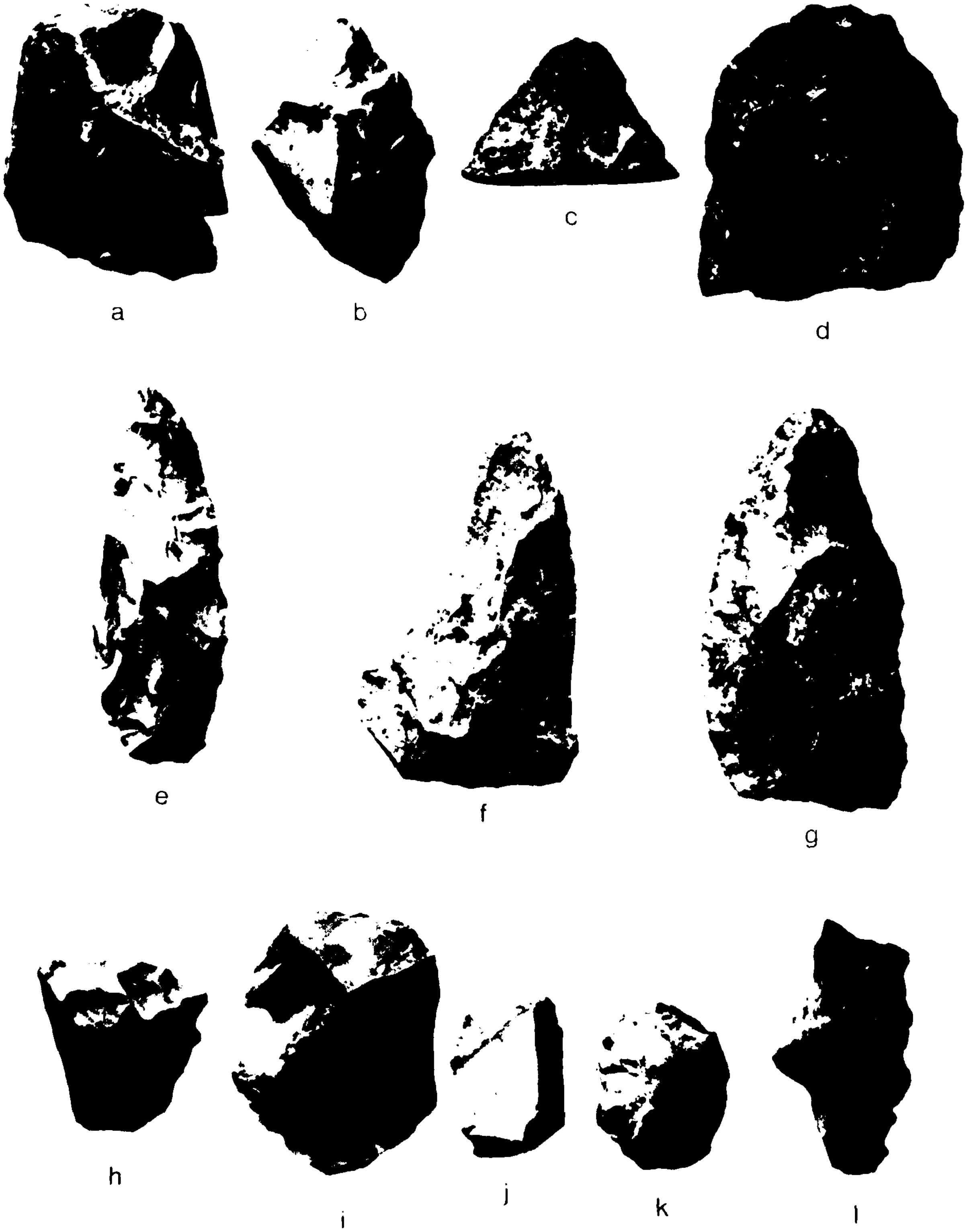
Figure 12.13

Site 22IT623: Selected Preforms, Bifaces, and Scrapers

Preforms
- a. Preform I (134-11)
- b. Preform I (129-110)
- c. Preform I (127-66)
- d. Preform II (129-107)

Bifaces
- e. Narrow Triangular Biface on a Flake (118-79)
- f. Triangular Biface on a Flake (146-1)
- g. Triangular Biface on a Flake (152-1)

Scrapers
- h. Uniface End Scraper on a Flake (106-6)
- i. Uniface End Scraper on Expanding Flake (118-80)
- j. Uniface End Scraper (203-2)
- k. Biface End Scraper on Other Flake (178-2)
- l. Notched Flake/Spokeshave (127-68)



12.71

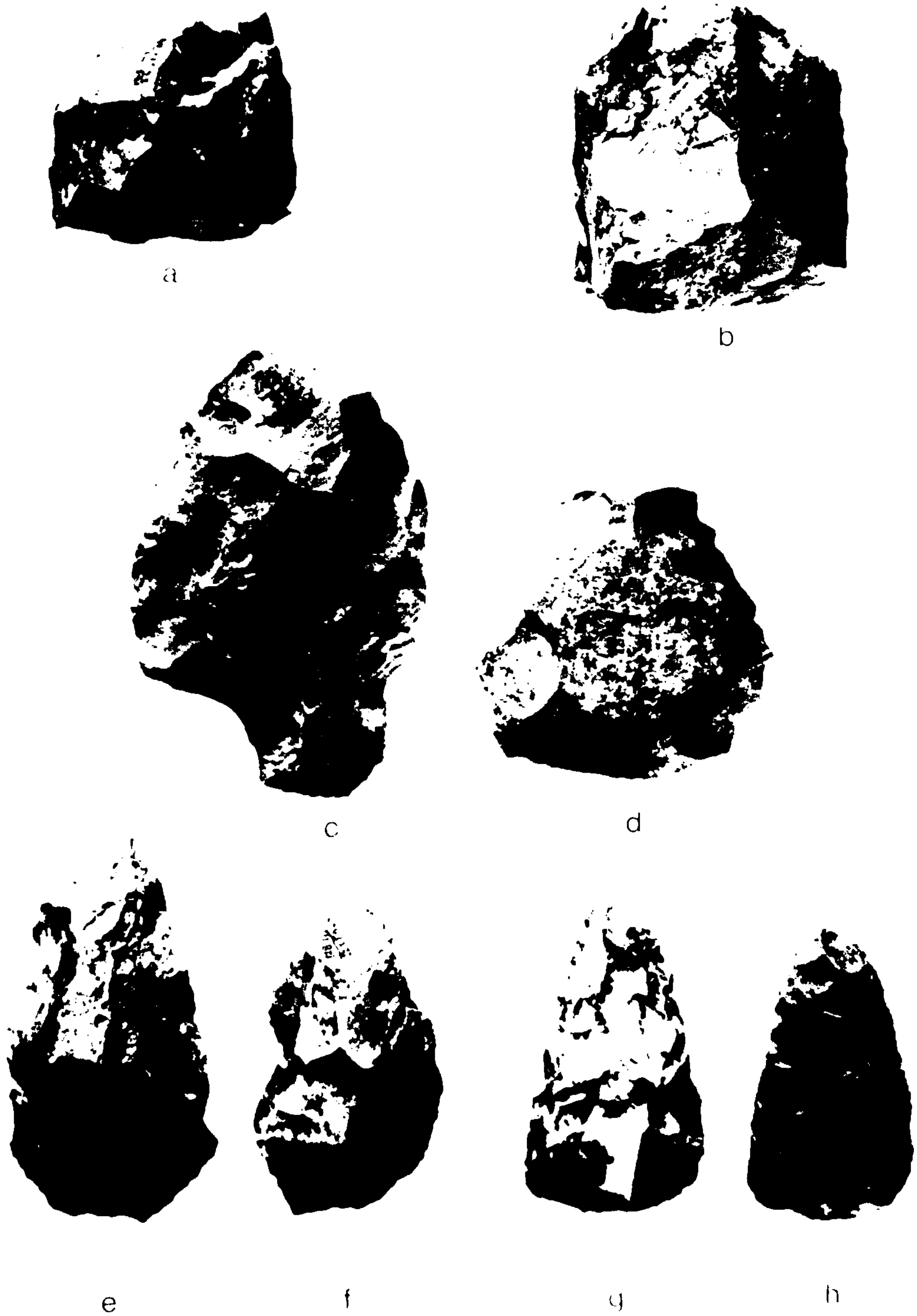
Figure 12.14

Site 22IT624: Selected Cores, Preforms, and Bifaces

Cores
- a. 901 Unifacial Core (105-49)
- b. 3601 Unifacial Core (179-2)

Preforms
- c. Preform I (214-1)
- d. Preform I (148-29)
- e. Preform II (183-3)
- f. Preform II (128-112)

Bifaces
- g. Triangular Biface on Other (155-1)
- h. Narrow Triangular Biface on Flake (230-1)



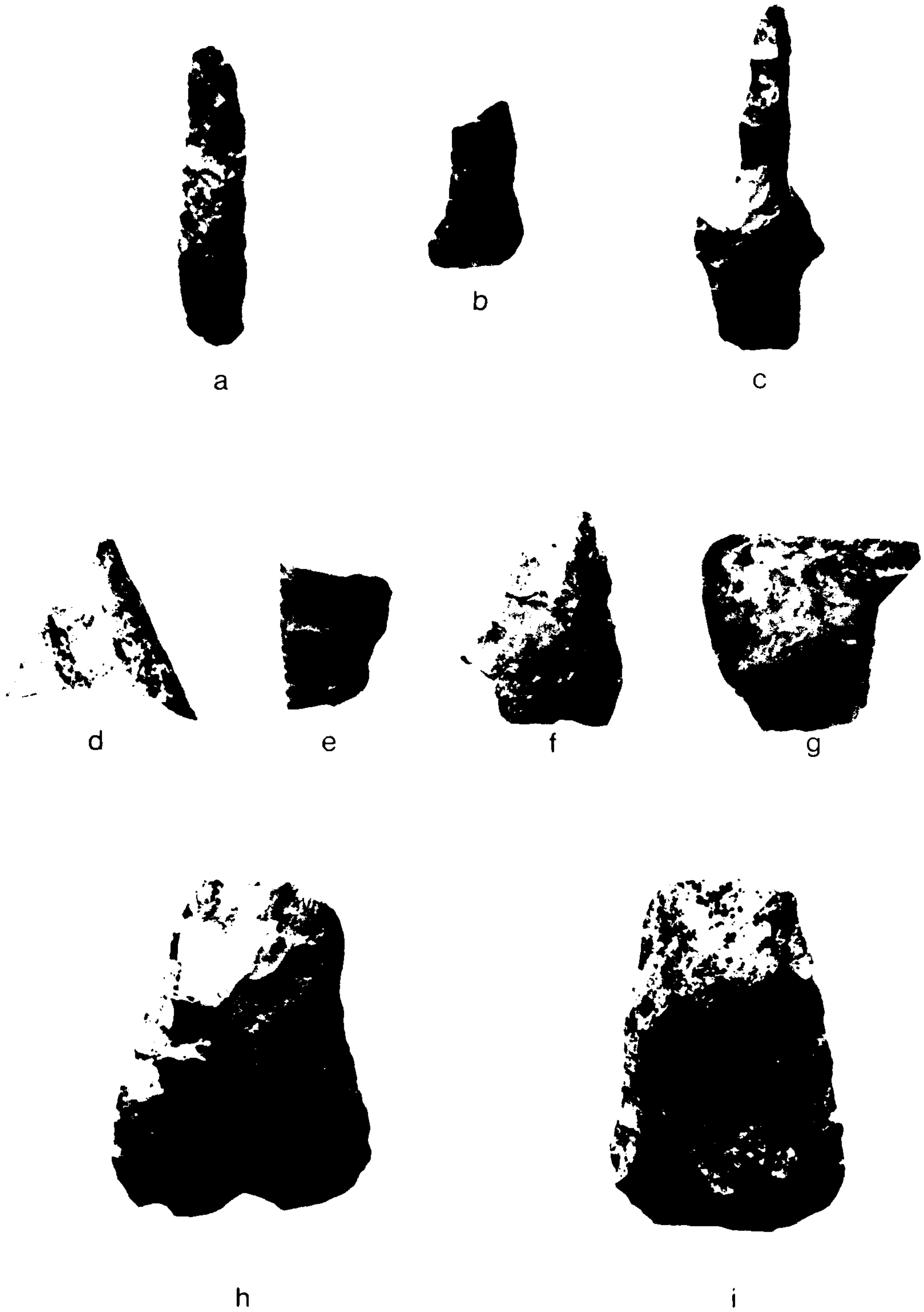
12.73

Figure 12.15

Site 22IT623: Selected Drills and Other Uniface Biface Tools

Drills
- a. Shaft Drill (125-91)
- b. Expanded Base Drill (213-7)
- c. Stemmed Drill (127-69)

Other Uniface and Biface Tools
- d. Biface Flake Knife (224-3)
- e. Biface Flake Knife (125-95)
- f. Uniface Flake Knife (129-109)
- g. Wedge (120-36)
- h. Biface Adze (120-36)
- i. Biface Adze (145-1)



12.75

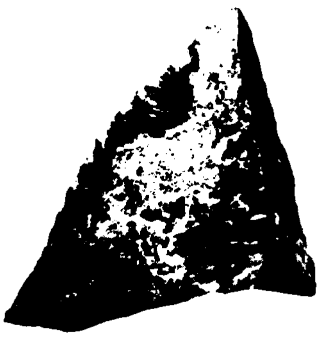
Figure 12.16

Site 22IT624: Selected Other Uniface and Biface Tools

a. Adze (119-117)
b. Biface Chopper (126-57)
c. Uniface Flake Knife (150-1)
d. Biface Flake Knife (199-3)
e. Uniface Cobble Knife (169-4)
f. Piece Esquille (154-3)

b

a



c

d

e

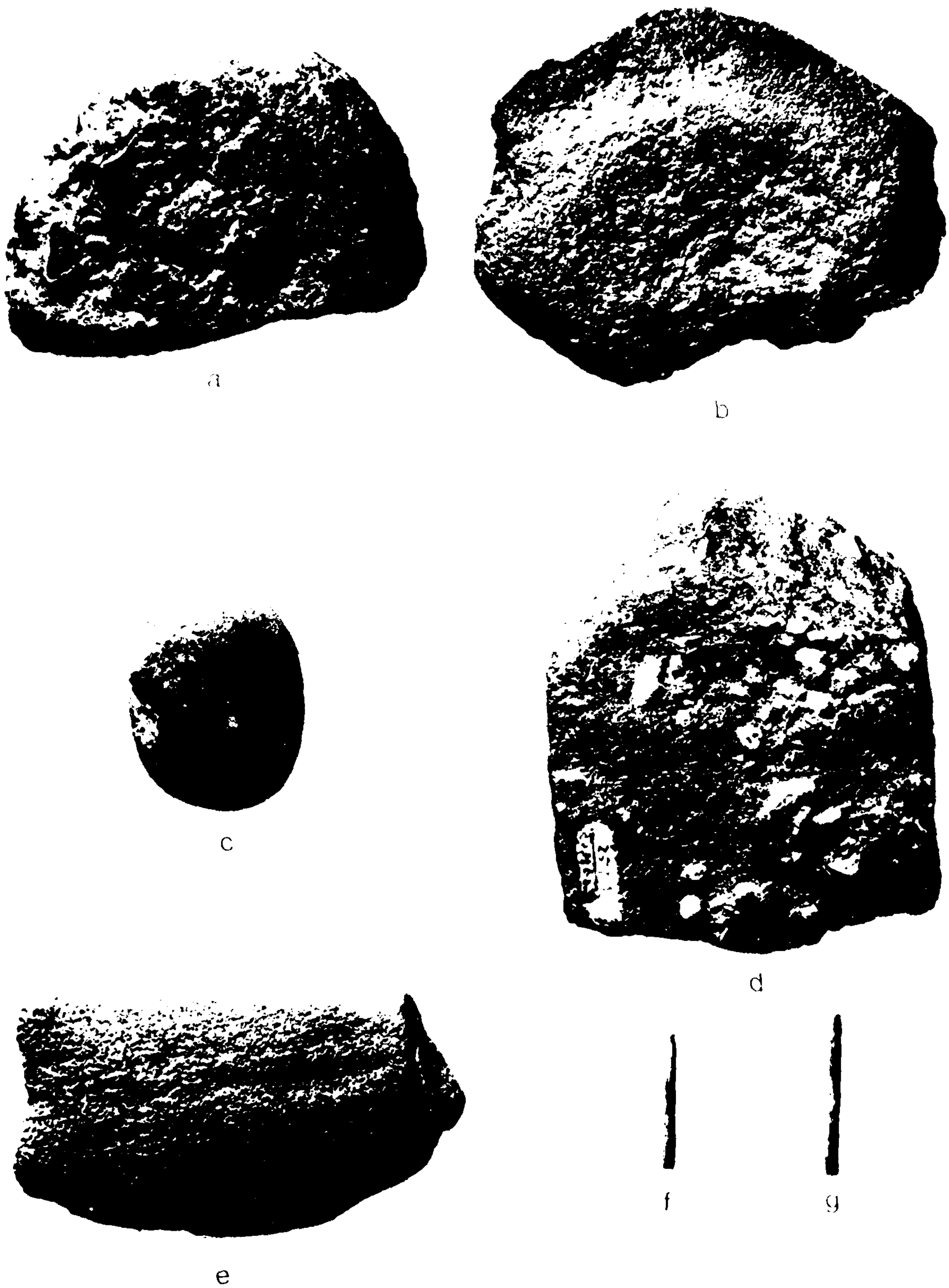
f

12.77

Figure 12.17

Site 22IT623: Selected Ground Stone Tools

a. Muller/Hammerstone (183-1)
b. Mortar (212-1)
c. Hammerstone (125-99)
d. Hammerstone (253-1)
e. Abrader (277-1)
f. Awl (127-70)
g. Awl (125-104)

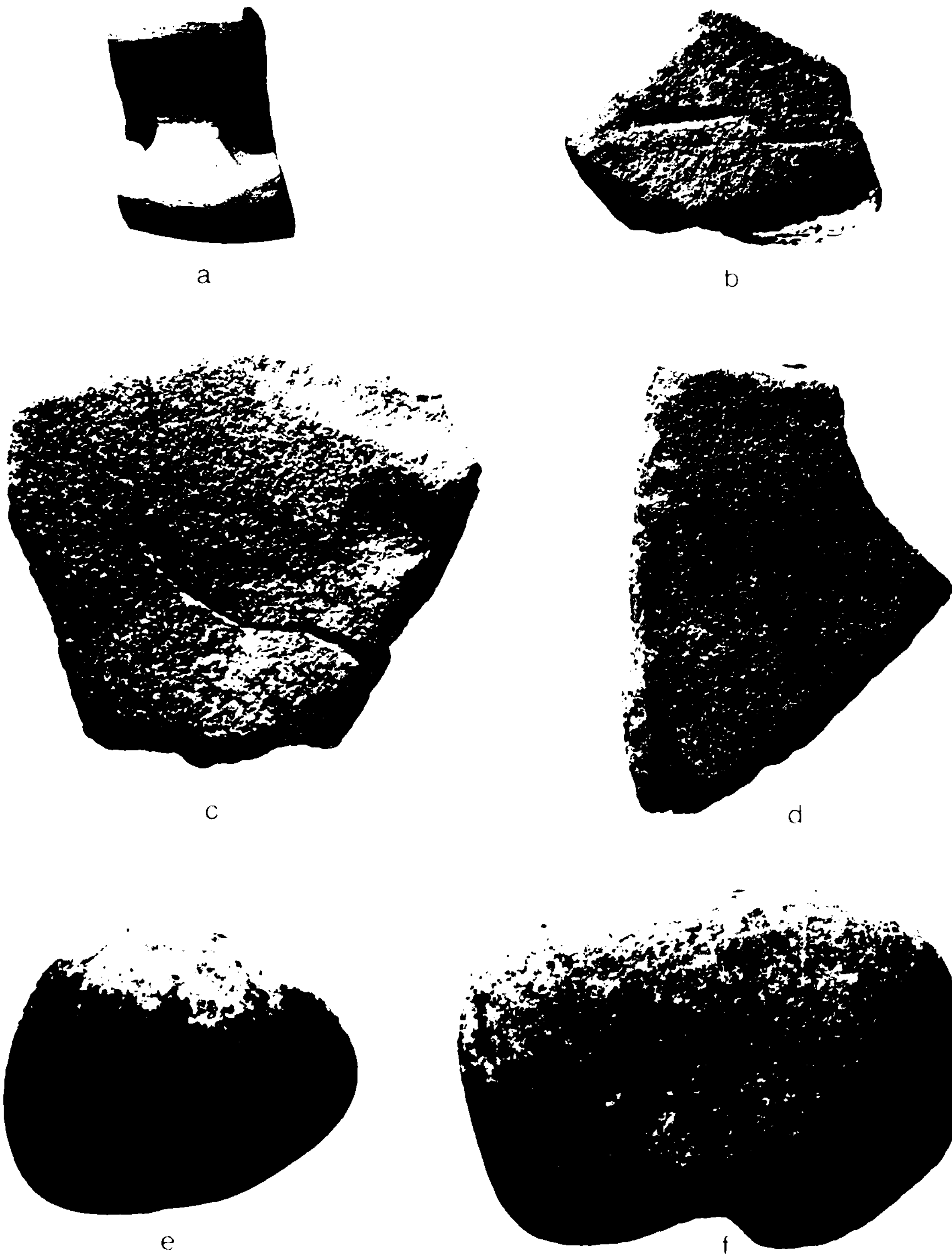


1279

Figure 12.18

Site 22IT624: Selected Ground Stone Tools

a. Atlatl Weight (121-77)
b. Abrader (169-7)
c. Mortar (241-1)
d. Muller (136-39)
e. Hammerstone (158-1)
f. Pitted Anvilstone (139-1)



a b c d e f

12.81

CHAPTER 13

THE DOGWOOD MOUND (22MO531)

INTRODUCTION

The Dogwood Mound (22MO531), a conical earthwork, was located and recorded during the early 1970s (Lewis and Caldwell 1972:18). Lewis and Caldwell (1972:111) and subsequent investigators (Adkinson 1978:114; Blakeman 1976:75) recommended additional investigation of this probable Miller I Period burial mound (Blakeman 1976:75).

The U.S. Army Corps of Engineers contracted with the Office of Archaeological Contracts, University of West Florida, to test 22MO531 as part of a multi-site testing and impact mitigation program. The purpose of the 22MO531 excavations was to assess the cultural affiliation of the inferred burial mound and to evaluate the integrity of the earthwork and its contents. The latter was of particular concern because of a large recent excavation, presumably dug by relic collectors, which intruded into the top of the feature (Figure 13.1). The archaeological test excavation was begun on February 16 and continued until March 9, 1981. The majority of the fieldwork was conducted during February with an eight member field team. A three-person team completed the field investigation in March.

SITE DESCRIPTION

The Dogwood Mound (22MO531) is located in Monroe County, Mississippi, approximately 8.3 km north-northeast of Aberdeen, the county seat (Figure 13.2). The earthwork is situated in the NE/NW/NE 1/4, Section 28, Township 13S, Range 14E, at Latitude 33°55'9", Longitude 88°32'6"; the Universal Transverse Mercator (UTM) coordinates are Zone 16, Easting 358091, Northing 3752701 (Wren, Miss. Quadrangle 1966: USGS 7.5 minute series).

The Dogwood Mound is a conical earthwork measuring approximately 17 m in diameter and about 1.85 m in height (Figure 13.3). A large, oval, basin-shaped depression is present in the top center of the mound. This depression, assumed to be a partially backfilled relic collector's excavation, measured approximately 3.75 meters north-south by 4 meters east-west and reached a depth of about 0.8 m (Figure 13.3).

The site lies approximately 520 m east of the present channel of the Tombigbee River and is on the edge of an upper Holocene terrace that, locally, is characterized by a silt loam soil. The mound is situated in an old agricultural field that presently supports a five to ten year old growth of cultivated pines. Second growth oak and hickory are found on the earthwork and within about five meters of its perimeter. An understory of dogwood, briars, and climbing and prostrate vines is associated with this hardwood copse.

The terrace escarpment is approximately 40 m west of the mound. This escarpment generally forms the boundary between the old agricultural field and the floodplain forest, which is dominated locally by large hickory trees of at least four species.

The terrace escarpment also marks the eastern edge of a relic stream channel that is probably a former course of the river. A rank one stream rises in this relic channel and flows southwestward into the lower bottoms.

The terrace on which the Dogwood Mound is situated is broad and level. Topographically, there is little relief other than gentle swells and swales. This topography and the silt loam soils of the area contribute to extensive active cultivation.

EXCAVATION STRATEGY

The purpose of the Dogwood Mound testing program was to assess the cultural affiliation of the earthwork and to evaluate the integrity of the site. Blakeman (1976:75) hypothesized that the earthwork was a "Miller I Period burial mound" and noted that "as such this site joins a relatively elite group of sites in northeast Mississippi including the Pharr Mounds and Bynum Mounds." Blakeman (1976:75) further noted, based on Bohannon's (1972:78) comments in his Pharr Mound report, that the excavation of 22MO531 might resolve the seemingly anomolus radiocarbon dates for the Hopewellian mortuary patterns defined for northeast Mississippi at the Bynum (Cotter and Corbett 1951) and Pharr (Bohannon 1972) mound groups. Blakeman (1976:75) also stated that investigation of the Dogwood Mound was needed "to expand our knowledge of the range of cultural variation in this occupational phase."

Blakeman's (1976:75) recommendations subsequently were supported by Atkinson (1978:114). He expressed the concern that "because of the rarity of such mounds in the Upper Tombigbee Valley the Dogwood Mound should be excavated before it is completely leveled by amateur diggers."

These research questions and concerns for the resource guided the formulation of the plan of investigation. The testing project was designed to address several general questions. The first concerned the cultural affiliation of the people who constructed the earthwork. This inquiry was to be answered by the expected recovery of diagnostic artifacts and features. A second purpose of the investigations was to determine whether the mound was a result of a single construction phase. This question was to be addressed through an evaluation of the soil stratigraphy and the distribution of cultural remains. The third concern related to the integrity of the site. The large surface depression appeared to intrude into the heart of the earthwork and potentially reached and destroyed the central interment, presumed to lie at the base of this hypothesized burial mound.

Two sides of the earthwork were cross-sectioned at a right angle with a series of aligned 1 m by 2 m units separated by balks. The excavation of those test units that formed the two intersecting "trenches" was generally conducted in 10 cm levels that conformed to the surface of the mound. This procedure was modified for those units lying within the depression. Here arbitrary 10 cm levels were employed because the historical topography had been destroyed. Arbitrary levels were also used to excavate units not situated on the earthwork.

All units excavated in the mound, except one, were dug to the subsoil contact. Soil texture, color, and structure were used to separate the construction fill from the sub-mound soil. Soil characteristics and cultural phenomena were noted or mapped during level excavation.

Soil excavated from the test units was water-screened through 0.25 inch mesh screen. Special samples, such as material for radiocarbon dating, soils identification, or macrobotanical analysis, were taken as the need arose.

Upon completion of the test units, the walls were examined and the strata correlated. The profiles of the north face of the western units and the east face of the northern units were drawn and described.

SOILS AND STRATIGRAPHY

The Dogwood Mound (22MO531) is situated on a high terrace within the modern floodplain. The soil in the immediate area of the earthwork is mapped as Kipling silt loam (USDA 1966: 12):

0 to 5 inches, brown to dark brown, friable silt loam;
5 to 27 inches, yellowish-brown, friable silty clay loam;
27 to 60 inches, mottled yellowish-brown, friable clay loam.

This brief soil description aided in determining the location of the base of the mound. Two test pits were excavated approximately five meters from the south and west edges of the mound (Figure 13.3). These test pits revealed a 10 cm to 15 cm thick plow zone of dark brown (10YR 3/3) mottled (10YR 5/6) silt loam. The plow zone overlay a yellowish-brown (10YR 5/4-5/6) silty clay loam that contained ferromanganese concretions. This sub-plow zone horizon was encountered beneath the mound and served to identify the base of the earthwork. Most units were dug to the contact of this horizon (Stratum V) although occassionally the boundary was cut through (Figure 13.4).

Five stratigraphic zones were defined (Figure 13.4) and are summarized below.

STRATUM	DESCRIPTION
I	Dark grayish brown (10YR 4/2) silt loam; weak subangular blocky structure firm (dry) friable (slightly moist); many fine and medium roots; clear wavy boundary. Comment: A horizon; organic staining appears to have developed in place.
II	Dark yellowish (10YR 4/4) silt loam; massive, slightly sticky, slightly plastic (wet); common fine and medium roots, common fine to medium random simple tubular pores; gradual wavy boundary. Comment: Possible "clay" cap of quarried 3 horizon material although lighter color most likely represents more intense weathering because of its position in the profile.
III	Dark yellowish-brown (10YR 4/6) silt loam; massive with remnant subangular blocky structure; slightly sticky, slightly plastic (wet), friable (moist); common fine to medium random simple tabular pores; gradual wavy boundary. Comment: First definitive loaded fill.
IV	Dark greyish brown (10YR 4/2) silt loam; massive, slightly sticky, slightly plastic (wet); friable (dry); clear wavy boundary. Comment: Possible buried A horizon or redeposited A horizon.
V	Yellowish-brown (10YR 5/6) to dark yellowish-brown (10YR 4/6) silty clay loam; plastic, sticky (wet); common manganese concretions; strong organic staining on ped faces. Comment: Stratum probably original B horizon soil.

The character of the mound fill generally indicates that the earthwork probably represents a single construction episode. Stratum I and II probably result from weathering of the mound's upper surface since the time that it was built. Stratum II forms the major volume of the earthwork and shows no indication of other than a single depositional phase. Stratum IV, as indicated, may represent a buried A horizon or a redeposited A horizon. The location and configuration of this zone generally suggest that it is a buried humus zone. The absence of this stratum in the western section of the earthwork, however, is puzzling. Two explanations are possible. First, contrasts between Stratum III and IV were less distinguishable in this section of the site and as a result the buried A horizon was not detected in units 112S/104W and 112S/106W. Second, Stratum IV was truncated at some point in the unexcavated unit 112S/102W. It appears that the first explanation did not occur but we are unable to demonstrate the second.

Prehistoric cultural debris was found scattered throughout the fill of the earthwork. Ceramic and lithic inclusions indicate that the earth employed to construct the mound was quarried from a locale containing occupational material. The silt loam character of the fill also suggests that the dirt was quarried nearby. No barrow area, however, was observed which is not surprising given the historic land use and periodic flooding of the locale.

Ceramics provide the most definitive clue to the cultural affiliation of the mound's builders. A ceramic complex principally including Furrs Cord Marked, Saltillo Fabric Marked, Residual Sand-tempered (Baldwin Plain ?), and Mulberry Creek Plain was recovered. Eroded sand-tempered sherds, which dominated the ceramic inventory, eroded limestone pottery and a single sherd of a brushed sand-tempered type and Alexander Incised were also collected. The association of Furrs Cord Marked, Saltillo Fabric Marked, plain sand-tempered sherds and Mulberry Creek Plain indicates a Middle to Late Miller I context which dates circa AD 1-300 (Jenkins 1979: 257-259). Further, the number of Furrs Cord Marked sherds (n=9) in comparison with those of Saltillo Fabric Marked (n=33) hints that the former constitutes a major type although outnumbered by the latter. If such is the case, this would suggest that the ceramics represent a Late Miller I occupation and would place the construction of the mound at circa AD 200-300 (Jenkins 1979: 258-259).

The earthwork suffered two major intrusions subsequent to its construction. The mound was utilized as an historic cemetery, probably during the nineteenth century. At least two individuals were interred in the earthwork. The south edge of the grave of the southern historic burial was clearly discernable in the profile and extended from the root mat within a few centimeters of the surface to a depth of about six feet (Figure 13.4). A more recent intrusion, the work of vandals, destroyed a major portion of the center of the earthwork (Figure 13.3). This large oval pothole (c. 3.5 m N/S by 4 m E/W) tapered toward the bottom where it is estimated to be about 2 m by 1.5 m (Figure 13.4). This pit destroyed at least one historic burial and the northern margin of the grave of Burial 1. The impact of the vandal's activities on any prehistoric interments that may have lain at the base center of the earthwork is uncertain.

CULTURAL REMAINS

FEATURES

Three features were documented during the Dogwood Mound testing project (Figure 13.5). The pothole, however, was not featured. The fill of this excavation was removed and discarded. Artifacts and osteological remains found in situ within the fill of the pothole were plotted or documented by level. All cultural material in each feature is presented in Appendix II of this report. The material contained in each division of each feature is presented in Supplement II.

Feature 1 was located in the northwest corner of Unit 114S/99W at 90 cm below the surface or in Stratum III. The feature is irregular in plan and profile. The feature was defined on the basis of its brown-dark brown (10YR 4/3) mottled (10YR 4/4) fill in contrast to the surrounding dark yellowish brown (10YR 4/4) matrix. The defined section of Feature 1 measures 51 cm NW/SE by 43 cm NE/SW by 25 cm deep. Material recovered from the feature includes: 4 g of eroded sand-tempered pottery and a few grams of introduced rock. Generally, Feature 1 is considered to represent *a loading phenomenom.*

Feature 2 was located in Unit 114S/99W (Figure 13.5) at the depth of 150 cm below the surface in Stratum III. The feature is a deposit of red (5YR 5/6) ocher. This deposit measures 14.5 cm N/S by 17.5 cm E/W by 12 cm deep. The feature exhibited a regular, oval plan, slightly tapering sides and a basin-shaped bottom. Two 0.25 inch nonutilized flakes and a few grams of introduced rock were recovered from the flotation sample of this feature. Whether this feature is of cultural origin and intentionally deposited in the mound fill is uncertain.

Feature 3, Burial 1 (Figure 13.6) was located in Unit 112S/99W at a depth of 179 cm below surface or intruding into Stratum IV. Only the western end of a poorly preserved burial container or coffin and the upper remains of a Caucasian female whose age at death is estimated as 50± years were exposed in Unit 112S/99W. The major portion of the interment extends eastward into an unexcavated section of the site. As noted the remains were buried in a coffin. This burial container was manufactured with cut common nails 6d (c. 2 0.125 inch/50.8 3.8mm, Figure 13.7 m). As a general rule nails are usually twice as long as the thickness of the material they join or fasten. The use of these nails suggests that the coffin was manufactured from one-inch planks. The vertical orientation of nails along the preserved southern and western sections of the container suggests that the sides were set on the bottom and nailed from beneath. The width of the coffin probably ranged from 30.5-40.6 cm; the height and depth of the container was probably more than 30.5 cm.

A series of 8 green seed beads, c. 2 mm in diameter, and 11 black seed beads, c. 3 mm diameter (Figure 13.7 1), were found in the thoracic or neck area. These beads lay in a postion which suggested a single strand arrangement and as such perhaps the beads were appliqued to a garment. No other grave goods were recovered.

The cranium and mandible of the interment were examined in the field by Dr. Robert I Gilbert, physical anthropological consultant to the project. Gilbert's observations are included below.

> The general configuration of the cranium (dolichocephalic) and the absence of shovelling of the anterior teeth in both maxilla and mandible suggest an individual of Caucasian extraction. Ramal angle, absence of brow ridges, sharpness of superior orbits, relation of zygomatic arch to the external auditory meatus and overall appearance strongly point to the sex of the skeletal as female.
>
> The age estimation of the individual is based upon the following: thinness of the parietals, maturity of the cranial sutures (closed on both the interior and exterior surfaces) and dental wear. Judged by these criteria the individual's age is estimated at 50 5 years at the time of death. The condition of the teeth would argue for a lower age, but balanced with the suture closings and parietal thinning is the probable consumption of foodstuffs of the historical period which would contain less grit and be of softer consistency. Such a diet would result in a lesser amount of tooth wear than might be expected had the individual adhered to Amerindian dietary practices.
>
> The anterior lower incisors were broken. This condition appears to have been the result of the length of time of burial rather than pre-mortem loss or decay. Without the caps of these lower incisors it is impossible to determine the presence or absence of caries in these teeth. However, caries are not particularly common in lower incisors. The upper right second molar displayed a

small cavity on the buccal surface. All teeth present were in relatively good condition with no obvious caries (other than the exception discussed above), developmental defects, or evidence of physical trauma. The first molars on both the left and right sides of the mandible and maxilla were absent. All first molars were lost pre-mortem as indicated by the alveolar resorption and remodeling which had occurred. The second and to some extent the third molars of both the upper and lower dentitions had begun an anterior tilting shift as compensation for the absence of the first molars thereby resulting in some increased wear facets of the anterior dentition.

Of interest and possible significance is the presence of a circular penetration of the left parietal immediately posterior to the coronal suture and slightly lateral of the sagittal suture measuring approximately 5.6 mm. The penetration is quite close to the bregma and resembles a wound possibly caused by a 22 caliber bullet. It is impossible to state whether this wound was the proximate cause of death or not. However, without doubt this particualr wound did not result in the immediate death of the individual. The inner table of the parietal is not shattered. From examination of the interior of the cranium it was easily determined that reparir and rebuilding of the inner table had proceded for several months prior to death. The surfaces of the inner cranium did not give an indication of markings left by a bullet either as an exit wound or as ricochet trails. Although the area surounding the cranium was searched no bullet was found. From the apparent angle of the wound (if indeed it was a bullet) an exit through the foramen magmun is not inconceivable.

Among other pathologies noted was considerable infectious disturbance occurring in the mastoids. Even with some remodelling the mastoids displayed marked indications of mastoiditis. The infection of the mastoids did not appear to have been active at time of death in as much as the revealed spicules and trabecular bone were not sharp. The degree of infection in no way diminished the normal configuration of the mastoids as the periosteal surface was in the main intact. The superior surface of both orbits displayed some porosities of an appearance similar to cribra orbitalia. The left orbit was the more severely affected. Although the causes of cribra orbitalia are not clearly established there is some evidence suggesting that depletion and/or insufficiency of iron available to the organism may produce lesions of this type. Such iron deficient associations with cribra orbitalia have been noted in tropical areas where parasitic infection is quite common. No hyperostosis spongiosa orbitae was noted in either facial or cranial bones.

Both the atlas and axis were completely normal in appearance, evidencing no pathologies or degenerative changes.

To summarize, Burial 1 represents a Caucasion female approximately fifty years old who was interred, presumably, in an extended postition in a burial container assumed to be a simple retangular coffin and oriented approximately 263 degrees west. The race, use of a portable burial container, the orientation and the inclusion of historic articles and hardware indicate a Euroamerican, Christian burial dating to c. mid-nineteenth century (cf Rodeffer et al 1972, Rodeffer 1973). Further, the association of the historic Dogwood Mound grave plot and an historic farmstead site within 300 m conforms with an expected settlement pattern of rural residence units (Rodeffer et al 1979: 31, 145-148, 154).

Although Burial 1 was the only interment formally defined, cranial remains of a second individual and 6d nails were recovered from the fill of the vandal's pit just to the north of Feature 3. This indicates that the Dogwood Mound minimally contained two historic interments.

ARTIFACTS

All artifactual remains except the beads and nails associated with Feature 3, Burial 1 were recovered from the mound fill and what possibly may be a buried A horizon at the base on the mound on the original land surface. No distribution patterns within the mound fill have been dectected. Material recovered from Units 112S/115W and 126S/99W indicate that prehistoric occupation debris is confined to the plow zone.

Comparatively few artifacts were recovered from the test excavations of Dogwood Mound. The ceramics (Figure 13.7 a-c) proved most useful in postulating the cultural affiliation and date of construction of this earthwork. The 306 recovered sherds are summarized in Table 13.1.

Chipped and ground stone implements (n=162) were recovered. Identifiable projectile point/knives were rare and included only one Little Bear Creek (Figure 13.7 d) and two Residual Stemmed types (Figure 13.7 e,f) which may be related to the former (Table 13.2). A small number of cores (n=5), preforms (n=2) (Figure 13.7 g,h), and biface blade fragments were collected. Miscellaneous chipped stone artifacts dominated the worked or utilized lithics. Table 13.2 summarizes the scrapers, spokeshaves (Figure 13.7 i), unifacial flake knives (Figure 13.7 j), unidentified chipped stone fragments, and utilized flakes and chunks recovered during the test project. Six ground stone items including two hammerstones (Figure 13.7 k), a muller, one piece of ground hematite, and two unidentified fragments were found (Table 13.2).

Nonutilized debitage was also recovered. This material is summarized by size grade or morphology and raw material type in Table 13.3.

The Introduced Rock category is listed in Table 13.4 by raw material type. The majority (80%) of this category consisted of manganese nodules which occur naturally in the soils of the area.

Historic artifacts include 15 6d common cut nails and 19 seed beads. All but three of these items were recovered in association with Feature 3, Burial 1. The remaining specimens were recovered from the pothole north of Burial 1.

DISCUSSION AND RECOMMENDATIONS

DISCUSSION

Test excavations at Dogwood Mound revealed no aboriginal interments or cremations. Although inhumations were expected at the base center of the mound, testing revealed only the two historic intrusions in this location. Whether prehistoric interments lie at the base of the earthwork is undemostrated because the location of the *in situ* Euroamerican burial halted the excavations in Unit 112S/99W. The northeast corner of this unit lay at the approximate center of the earthwork and it was judged that the excavation of this unit would most likely uncover the postulated central interment. However, no evidence of prehistoric burials was encountered one meter west or two meters south of 112S/99W.

Despite the lack of aboriginal interments, the material contents of the fill indicate that the earthwork was constructed during the Middle Woodland period. Based on the recovery of a ceramic complex containing Saltillo Fabric Marked, Furrs Cord Marked, plain sand-tempered sherds, and Mulberry Creek Plain, the mound was probably constructed during the latter part of the Miller I phase or c. AD 1-300 and quite possibly during the Late Miller I subphase which dates about AD 200-300.

The stratigraphy of the earthwork suggests that the mound was constructed as a single unit. Differentiation of stratigraphic zones is considered the result of post depostitional weathering and possible burial of an A horizon. An historic grave, inferred to date to the nineteenth century, cross-cut or intruded into all but the base strata of the site. While it might be suggested that the earthwork was an artifact of of the historic period for use as a cemetery plot, the cross-cutting and truncation of stratigraphic zones within the earthwork negate this possibility. Based on the available evidence, albeit circumstantial, there is little doubt that the mound is a prehistoric feature, most probably associated with mortuary practices.

The use of an aboriginal earthworks for Euroamerican cemeteries is in keeping with the historic settlement pattern practice of selecting prominant topographic features for the location of graveyards. The site of the Dogwood Mound historic grave plot and the location of a farmstead site approximately 230 m to the east, however, reflect a locational pattern common to rural households of the Southern Piedmont during the eighteenth and nineteenth centuries.

RECOMMENDATIONS

The discovery of a Euroamerican interment at the Dogwood Mound requires one of two actions. The site can either be preserved and protected in perpetuity or the historic interment(s) can be moved and reburied which would necessitate mitigating the impact of this action on the prehistoric resources of the site.

Preservation of the site is the most favorable alternative <u>if</u> the earthwork can be protected. The mound, although presently in a remote locale, has been vandalized and waterway construction may improve access to the site via water transportation which could increase the hazard of additional damage perpetrated by relic collectors to this resource.

The second alternative is to mitigate the possible impact on the mound by relocating the historic burial(s) and excavating the earthwork. This action would serve to protect the remains of Burial 1 and provide much needed information of Middle Woodland burial practices in the Upper Tombigbee Valley. The fact that Dogwood Mound appears to represent a single component mortuary facility provides an opportunity to document and refine our understanding of the burial customs and the assemblage of material remains that characterize the prehistoric folk who constructed this earthwork.

To accomplish the preservation and protection of Dogwood Mound, the site should be monitored on regular schedule. If the site cannot be closely monitored or if such a program proves ineffective in protecting this resource, then full excavation of the earthwork should be instituted.

Table 13.1. Site 22MO531: Summary of Ceramic Types.

TYPE	NUMBER	PERCENT
Mulberry Creek Plain	6	1.96
Eroded Limestone	4	1.31
Furrs Cord Marked	9	2.94
Saltillo Fabric Marked	34	11.11
Residual Sand Plain	13	4.25
Sand-Other (Brushed)	1	0.33
Eroded Sand	238	77.78
Alexander Incised	1	0.33
TOTAL	306	100.0%

Table 13.2. Site 22MO531: Summary of Chipped and Ground Stone Artifacts.

TYPE	NUMBER	PERCENT
Projectile Point/Knives		
Little Bear Creek	1	0.62
Residual Stemmed	2	1.23
Unid. Distal Fragment	2	1.23
Unid. Medial Fragment	2	1.23
Cores, Preforms, and Biface Blades		
180° Unifacial Adjacent Core	1	0.62
Core-Other	2	1.23
Core Fragment	2	1.23
Preform 1	1	0.62
Preform 2	1	0.62
Biface Blade Proximal Fragment	1	0.62
Miscellaneous Chipped Stone		
Uniface End Scraper	1	0.62
Uniface Side Scraper	1	0.62
Notched Flake/Spokeshave	2	1.23
Uniface Flake Knife	2	1.23
Unid. Chipped Stone Fragment	16	9.88
Utilized .5-Inch Flake	61	37.65
Utilized .25-Inch Flake	54	33.33
Utilized Blade-like Flake	2	1.23
Utilized F.C. Chert/Chunk	2	1.23
Miscellaneous Ground Stone		
Hammerstone	2	1.23
Muller	1	0.62
Ground Hematite	1	0.62
Unid. Ground Stone Fragment	2	1.23
TOTAL	162	100.0%

Table 13.3. Site 22MO531: Summary of Non-Utilized Debitage.

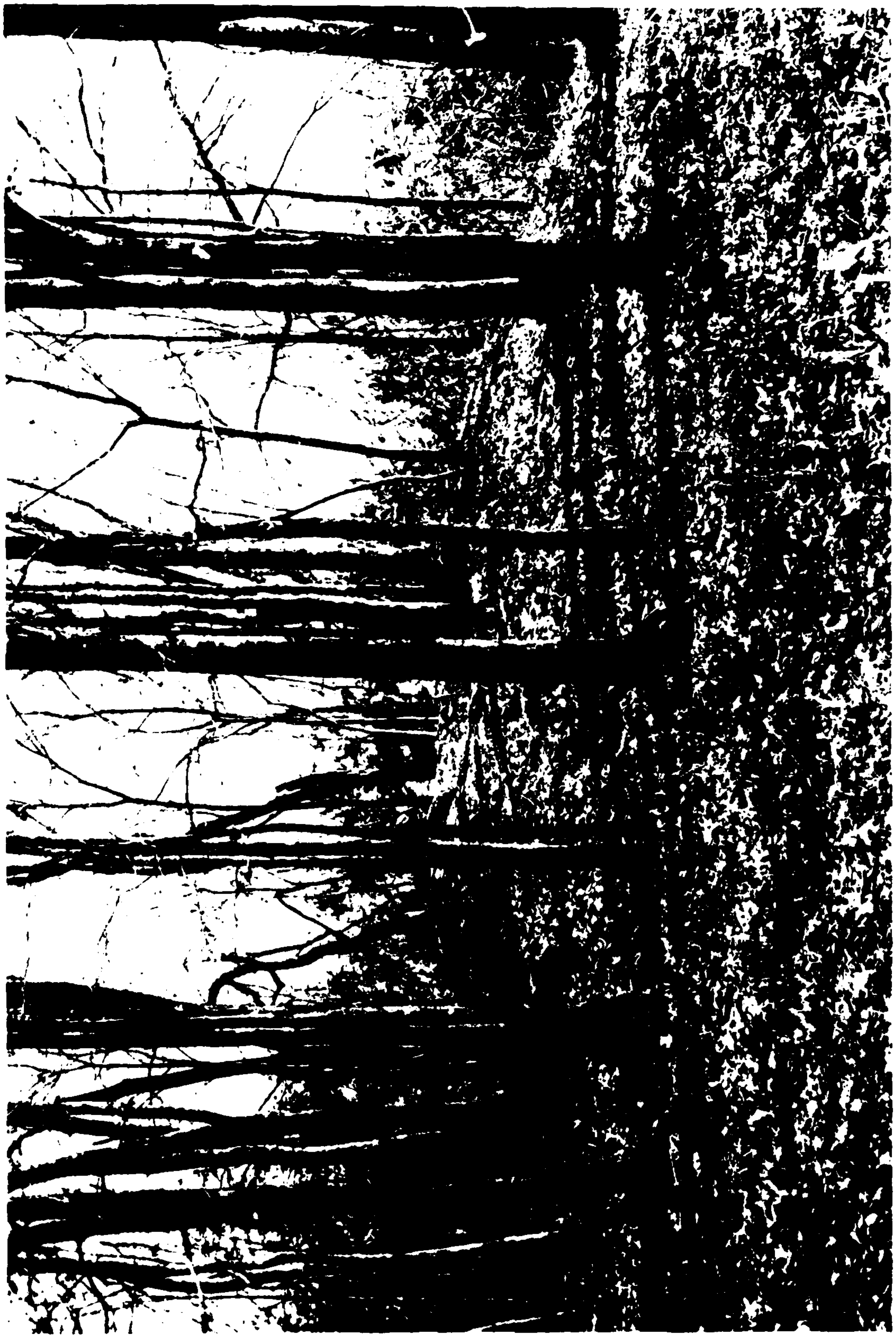
TYPE	NUMBER	PERCENT
1-Inch Flakes		
Camden, Heated	2	0.06
Camden, Unheated	1	0.03
Quartz	1	0.03
.5-Inch Flakes		
Bangor, Blue-Green	1	0.03
Camden, Heated	449	14.55
Camden, Unheated	27	0.87
Ft. Payne	15	0.49
Quartzite	2	0.06
Sandstone, Ferr.	3	0.10
Unidentified	2	0.06
.25-Inch Flakes		
Bangor, Blue-Green	1	0.03
Bangor, Fossil.	4	0.13
Camden, Heated	2,341	75.86
Camden, Unheated	83	2.69
Ft. Payne	104	3.37
Ft. Payne, Fossil.	10	0.32
Novaculite	1	0.03
Pickwick	1	0.03
Quartzite	10	0.32
Sandstone, Ferr.	10	0.32
Tuscaloosa, Heated	1	0.03
Unidentified	17	0.55
Blades/Blade-like Flakes		
Camden, Heated	1	0.03
TOTAL	3,086	100.0%

Table 13.4. Site 22MO531: Summary of Introduced Rock.

TYPE	NUMBER	PERCENT
Fire Cracked Chert/Chunk	461	3.31
Cobble/Pebble	781	5.60
Hematite	5	0.04
Manganese Nodules	11,195	80.26
Petrified Wood	22	0.16
Quartzite	1	0.01
Sandstone	424	3.04
Sandstone, Ferr.	1,059	7.59
TOTAL	13,948	100.0%

Figure 13.1

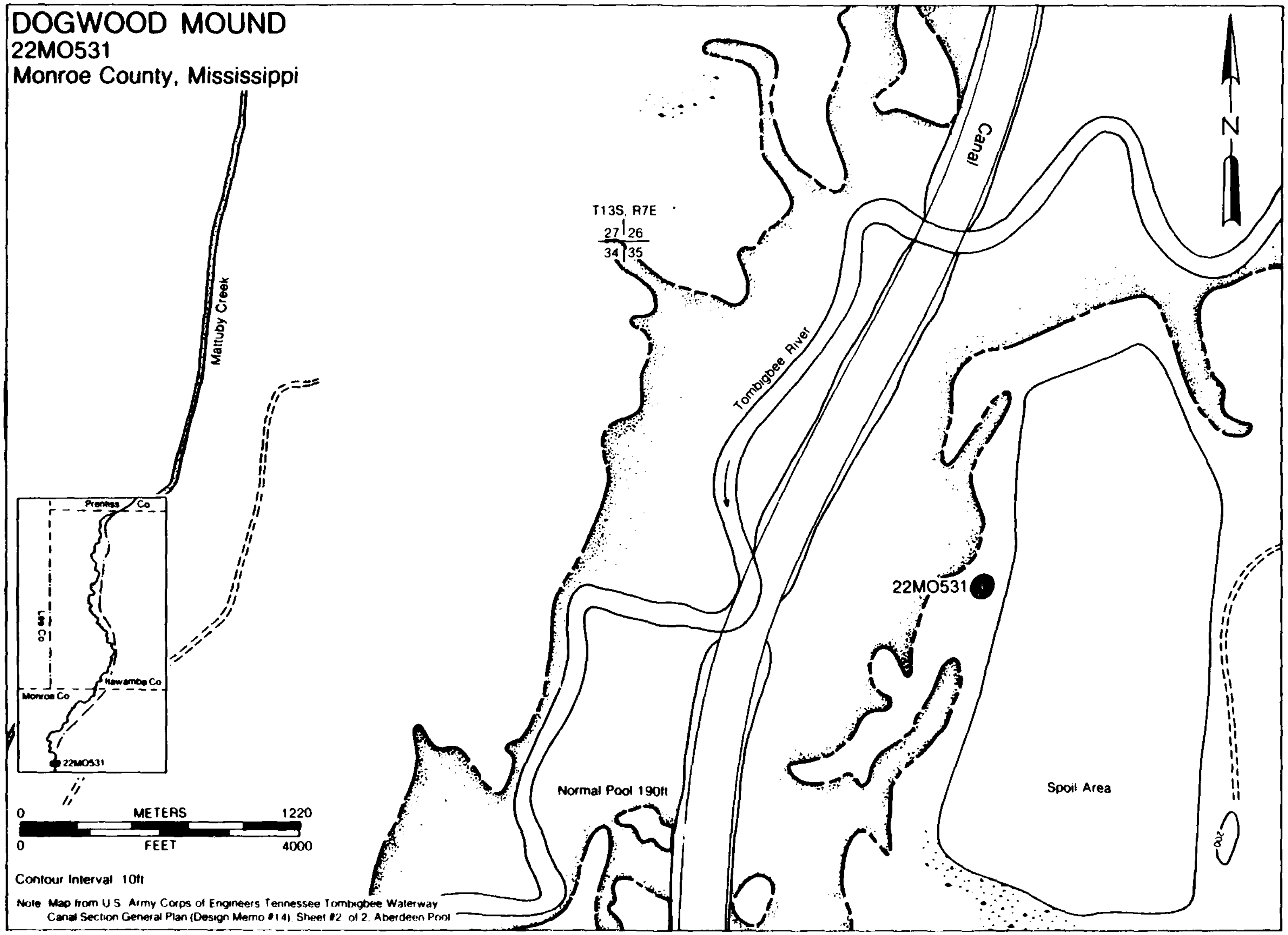
Site 22MO531: Pre-excavation site surface, view to the north



13. 18

Figure 13.2

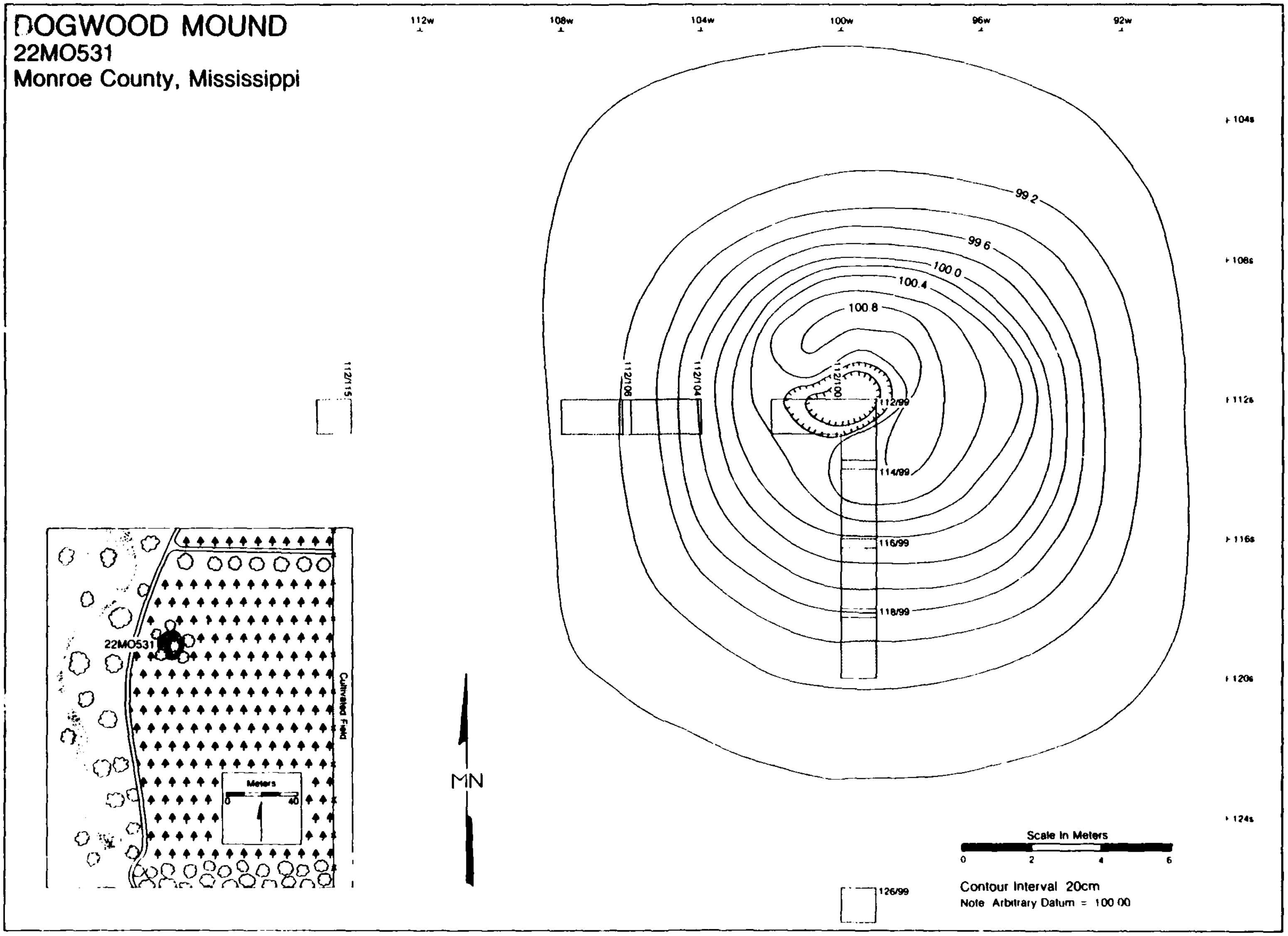
Site 22MO531: Waterway site location map


DOGWOOD MOUND
22MO531
Monroe County, Mississippi
N
Canal
T13S, R7E
27 26
34 35
Mattuby Creek
Tombigbee River
22MO531
Prentiss Co
Lee Co
Itawamba Co
Monroe Co
22MO531
Normal Pool 190ft
Spoil Area
200
0 METERS 1220
0 FEET 4000
Contour Interval 10ft
Note Map from U.S. Army Corps of Engineers Tennessee Tombigbee Waterway
Canal Section General Plan (Design Memo #14), Sheet #2 of 2, Aberdeen Pool

13.20

Figure 13.3

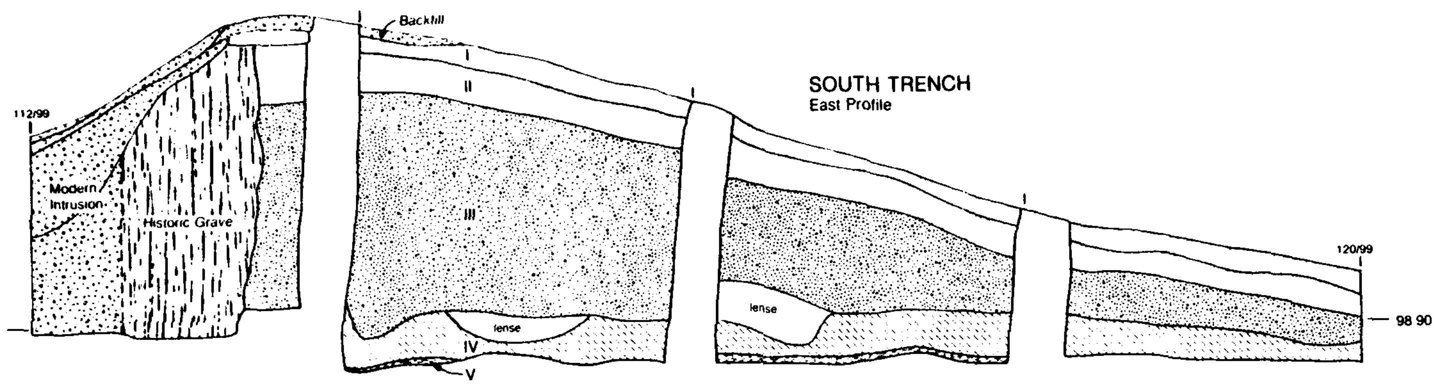
Site 22MO531: Topographic map and excavation plan


DOGWOOD MOUND
22MO531
Monroe County, Mississippi
112w
108w
104w
100w
96w
92w
104s
108s
112s
116s
120s
124s
99.2
99.6
100.0
100.4
100.8
112/115
112/106
112/104
112/100
112/99
114/99
116/99
118/99
126/99
Cultivated Field
22MO531
Meters
0
40
MN
Scale in Meters
0
2
4
6
Contour Interval 20cm
Note Arbitrary Datum = 100.00

13.22

Figure 13.4

Site 22MO531: Stratigraphy



22MO531

I. Dark greyish brown (10YR 4/2) silt loam.
II. Dark yellowish brown (10YR 4/4) silt loam.
III. Dark yellowish brown (10YR 4/6) silt loam.
IV. Dark brown (10YR 3/3 / 10YR 4/3) silt loam.
V. Yellowish brown (10YR 5/6) to dark yellowish brown (10YR 4/6) silty clay loam.

● Roots

cm
0 40 80

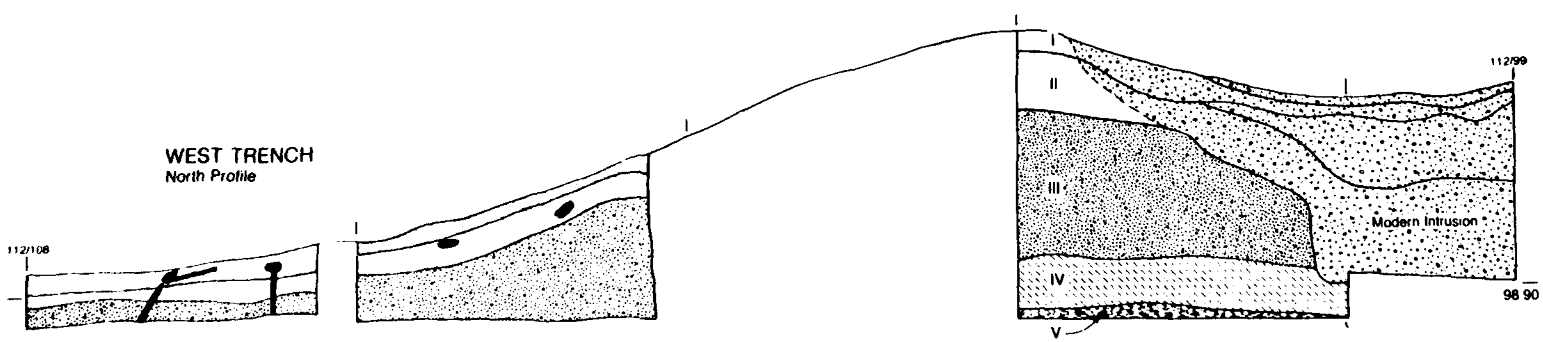


Figure 13.5

Site 22MO531: Feature distribution

22MO531
Features

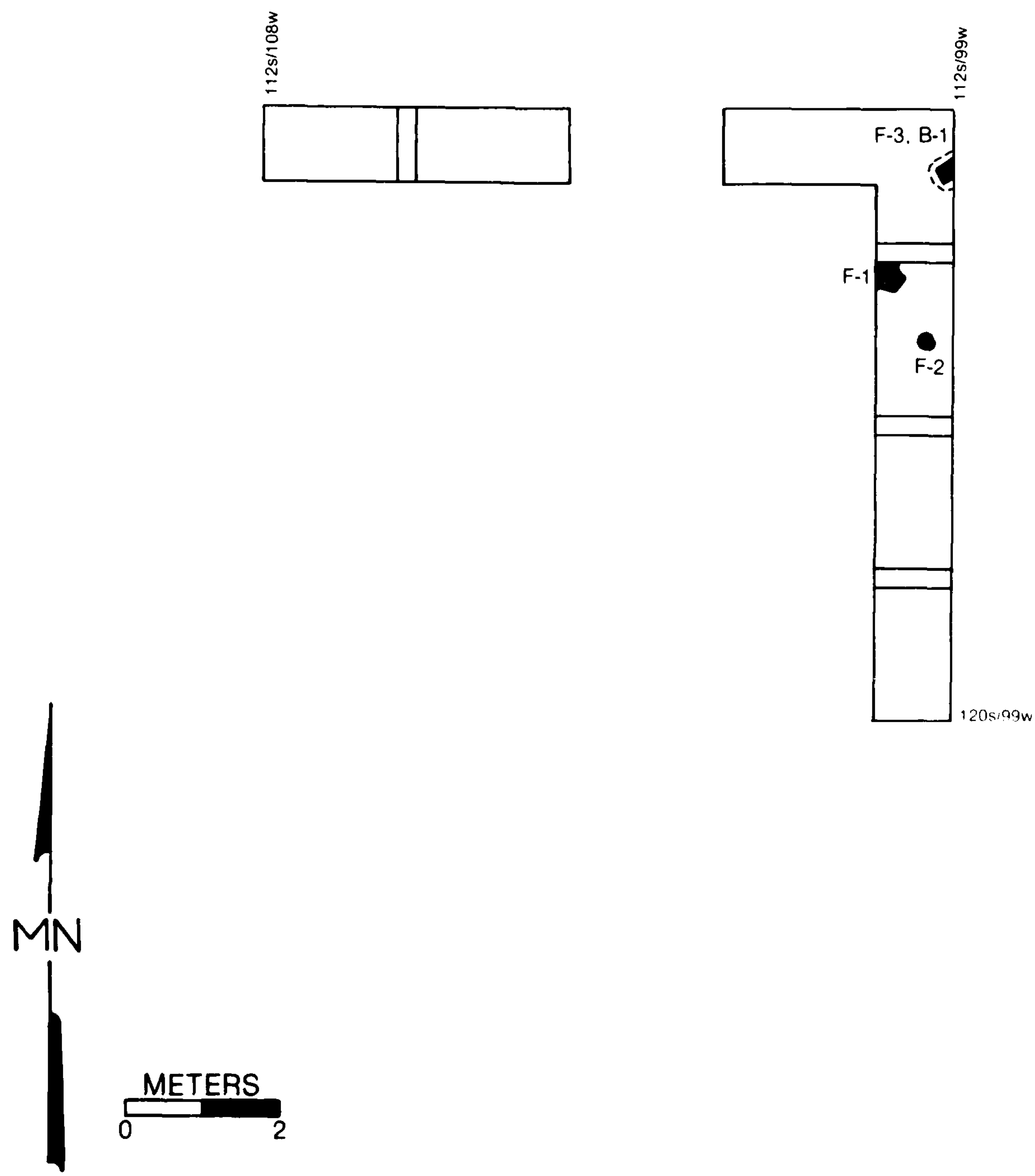


Figure 13.6

Site 22MO531: Burial One

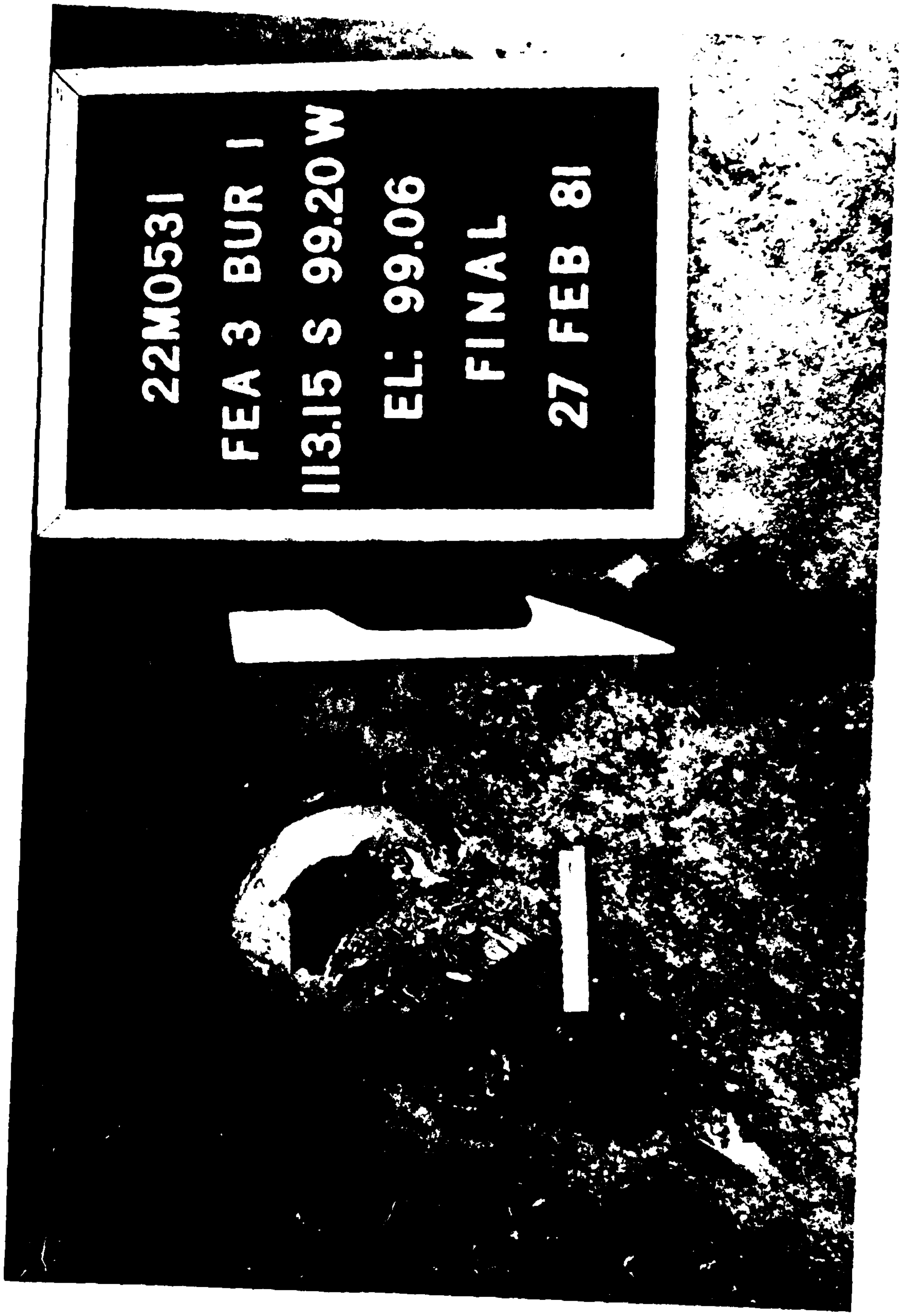

22M0531
FEA 3 BUR I
113.15 S 99.20 W
EL: 99.06
FINAL
27 FEB 81

Figure 13.7

Site 22MO531: Selected Artifacts

Ceramics

a. Saltillo Fabric Marked (207-1)
b. Saltillo Fabric Marked (150-1)
c. Furrs Cord Marked (124-1)

Lithics

d. Little Bear Creek Projectile Point/Knife (200-1)
e. Residual Stemmed Projectile Point/Knife (231-1)
f. Residual Stemmed Projectile Point/Knife (109-1)
g. Preform I (180-1)
h. Preform II (196-1)
i. Notched flake spokeshave (107-4)
j. Uniface flake knife (144-3)
k. Hammerstone (151-6)

Historic

l. Seed beads (143-2)
m. Iron nails (181-9)

13.30

CHAPTER 14

SMILAX SITE (22MO675)

INTRODUCTION

The Smilax site (22MO675) was located during a survey of the Canal Section of the Tennessee-Tombigbee Waterway (Blakeman 1975:16) and was selected for additional investigation based on the presence of a Late Archaic component (Blakeman 1975:74). The 22MO675 testing project was part of a multi-site investigation program contracted to the University of West Florida by the U.S. Army Corps of Engineers-Mobile District. The Smilax site fieldwork was initiated January 27, 1981 and continued to February 9, 1981.

SITE DESCRIPTION

The Smilax site (Figure 14.1) is located in Monroe County, Mississippi, approximately 3.2 km northeast of Aberdeen, the county seat. The site is situated in the NE/SE/SE 1/4, Section 9, Township 14S, Range 19W at 33°51'19" N latitude and 88°31'42" W longitude. Universal Transverse Mercator (UTM) coordinates are: Zone 16, Easting 359610, Northing 3747010. (Aberdeen, Mississippi Quadrangle, 1966: USGS 7.5' Series).

22MO675 (Figure 14.2), occupying a low rise in an agricultural field, (Figure 14.3) is situated on the Upper Holocene terrace 400 m east of the Tombigbee River. The Smilax site is bounded on the north and west by a bluff about five meters high that rises from the Vine Creek floodplain. An embankment and ditch forms the current eastern boundary of 22MO675. These topographic features on the east are the remains of a nineteenth century railroad grade. The southern boundary was defined for this testing program by a judgementally-determined decrease in surface artifact density. Actually, the entire field in which 22MO675 is located is littered with prehistoric cultural debris. Two other sites, 22MO676 and 22MO677, occupy knolls about 100 m and 200 m to the west-northwest and west-southwest, respectively, of 22MO675.

Monroe County is characterized by a humid, warm continental climate averaging 52 inches of rain per year with the heaviest precipitation falling between January and March (Murphree et al. 1966:119). Historically, the soils of this locale supported an oak-pine forest with dogwood forming a major component of the understory (Hilgard 1860:257-258). The 1961 Series Monroe County Soil Survey indicates that as late as twenty years ago 22MO675 was in a stand of hardwoods, a habitat that probably supported game such as squirrel, deer, and turkey (Murphree et al. 1966:119, Sheet 73). Today the site lies in a cultivated field fringed on three sides by remnants of this forest (Figure 14.3).

EXCAVATION STRATEGY

The purpose of the 22MO675 test excavation was to assess the composition and integrity of the site's archaeological record. The principal objectives of the project included identifying the cultural components and evaluating the activities reflected in the material record. These objectives contributed to the development of an investigation plan utilizing controlled surface collections and subsurface testing.

A controlled surface collection was made to contribute data, theoretically, on the chronological range of the site's occupation and to provide some insight into intrasite artifact distribution and activities. A 22% stratified random sample surface collection was made at 22MO675. The triangular-shaped locale was initially divided into twenty-one 12 m by 12 m units to implement this procedure. Each 12 m by 12 m unit was subdivided into nine 4 m by 4 m collection squares. Two 4 m by 4 m squares in each 12 m by 12 m unit were selected for sampling by employing a random numbers table (Figure 14.4). This method distributed collection squares randomly throughout the site. A two-member team, composed of a collector and a recorder/time keeper, was assigned to the surface collection task. A five minute limit was set on the time devoted to collecting the designated 4 m by 4 m units. This scheme permitted an efficient and economical method for sampling the surface artifactual remains.

Subsurface investigation was conducted by two methods: hand excavation and mechanical stripping. These procedures were employed to collect information on the cultural and natural stratigraphy and to examine large areas for the presence of features below the plowzone. The majority of the 2 m by 2 m test pits was placed randomly (Figure 14.5). The locations of one test pit (77S/106W) and of the three stripping trenches were judgementally determined (Figure 14.2).

Test excavation units were dug in 10 cm levels, except Level 1, which was excavated from surface to the nearest even 10 cm elevation. All levels were processed through 0.25 inch hardware cloth at the water-screen station. Four liter flotation (macrobotanical) samples were taken from all levels below the plow zone. A control column, containing macrobotanical, perpetuity/soil, and finescreen samples, was taken in Unit 158S/120W. A flotation sample was taken from each feature. Only one random-sample unit, 158S/120W, and the judgementally placed test unit, 77S/106W, were excavated into subsoil because of time constraints and weather conditions. All other test units and mechanically-stripped transects were dug to immediately below the base of the plowzone to check for cultural features.

STRATIGRAPHY

Test unit soil profiles compare closely with the description of a member of the Kipling series (KpA) (USDA 1966:12):

0 to 5 inches, brown to dark-brown, friable silt loam
5 to 27 inches, yellowish-brown, friable silt loam
7 to 60 inches, mottled yellowish-brown, friable clay loam.

Three major strata are present at 22MO675 (Figure 14.6).

Stratum 1 10 - 20 cm thick: The plowzone is a grayish brown silt loam (10YR 5/2). This zone contains a mixed artifact assemblage ranging from Mississippian to Late Archaic.

Stratum 1A 5 - 15 cm thick: This is a dark brown silty clay loam (7/5YR 4/4) rich in organics, is absent in the plowed area of 22MO675, and is presumed to have been destroyed then by erosion or masked by cultivation.

Stratum 2 10 - 20 cm thick: This is a yellowish-brown silty loam (10YR 5/6) and Stratum 3 (30+ cm thick), a yellowish-brown silty clay loam (10YR 5/8), are not culture-bearing. These same strata are present in Test Unit 77S/106W, which is located in the uncultivated, wooded area on the north edge of 22MO675 (Figure 14.2).

CULTURAL REMAINS

The 22MO675 test excavations produced two principal data sets: a collection of surface materials and a collection of artifacts excavated from test units. The data obtained from the surface collection and from the test excavations are discussed below.

CONTROLLED SURFACE COLLECTION

Artifact Classes

Table 14.1 presents the distribution of the artifacts collected from the surface of 22MO675. These are arranged by collection unit and analytical catagory.

Ceramics

Four sherds were recovered during the surface collection of 22MO675. Types represented include Baytown Plain (n = 1) Eroded Grog (n = 2) and Eroded Sand (n = 1).

Lithics

Projectile Point/Knives: No diagnostic hafted bifaces were found in the controlled surface sample. One Flint Creek projectile point/knife (Figure 14.7a), however, was recovered as a fortuitous surface find.

Cores, Preforms, Bifaces and Miscellaneous Chipped Stone Implements: Nine surface artifacts were assigned to these categories. These included one core, one preform, one reamer (Figure 14.7 a,b,and c, respectively), one uniface sidescraper, one unidentifiable chipped stone fragment and four utilized flakes. All items were manufactured from Camden chert, with all but two 0.5-inch utilized flakes being the heat-treated variety.

Non-utilized Debitage: Sixty-three pieces of lithic debitage were recovered during the surface collection: ten 0.5-inch flakes and fifty-three 0.25-inch flakes. Five raw material types are represented in the debitage collected from the surface of 22MO675. These include Unheated Tuscaloosa gravel, Heated Camden chert, Unheated Camden chert, Pickwick chert, and Ferruginous Sandstone. A majority of the surface debitage (93.7%; n = 59) is composed of Camden chert flakes, 94.9% (n = 56) of which have been thermally-altered or heat-treated. Pickwick and Unheated Tuscaloosa cherts combined constitute another 3.2% (n = 2) of the lithic debitage source materials, while the remaining 3.2% (n = 2) are composed of Ferruginous Sandstone.

Introduced Rock: Within the Introduced Rock category, 83% (n = 537 g) of the items consist of unmodified cobbles/pebbles, 10.4% (n = 70 g) are of Fire-cracked Rocks/Chunks, 5.8% (n = 39 g) are Ferruginous Sandstone and less than 1% each are Sandstone (n = 4 g) and Chalk (1 g). Pebble-sized or smaller specimens of these raw material types may occur naturally at 22MO675.

Historic Artifacts: Two historic artifacts were recovered during the controlled surface collection of 22MO675: one 12-guage, low brass shotgun shell and one aluminum can (Budweiser Beer).

Surface Collection Summary

Diagnostic artifacts found in the timed-surface collection and as fortuitous surface finds at 22MO675 suggest that potential cultural resources at the site include Historic (Euro-american), Late Woodland. Middle Woodland/Late Gulf Formational and Gulf Formational components. No artifact distribution patterns were detected. The paucity of cultural material recovered during the surface collection suggested two alternate hypotheses: (1) 22MO675 represents a low density, shallow occupation heavily disturbed by cultivation or (2) the low density of surface materials reflects only minimal disturbance of buried, cultural-bearing strata by plowing. These questions were addressed during the test excavations.

TEST EXCAVATION UNITS

Feature Classes

In addition to the test excavation units, three judgementally-placed 24 m by 2 m mechanically-stripped transects were opened at 22MO675 to explore for subsurface features (Figure 14.2). A small tractor and box-scraper were employed to cut these transects (Figure 14.8). Because one primary objective of the testing program was to ascertain the presence or absence of cultural features, a two-person observation team followed the tractor and marked all soil stains. After the disturbed plowzone had been stripped from the transects, soil stains were examined and given feature designations if they persisted vertically or horizontally after troweling. Thirteen such features (Figure 14.2) were defined and examined. Based on plan view and profile drawings, soil descriptions, and feature content (Table 14.2), 12 of the features are attributed to natural activities such as tree growth and animal burrowing. One stain, Feature 1, probably is associated with recent land-clearing activities.

Artifact Classes

Table 14.3 presents the distribution of artifactual material recovered during the subsurface testing of 22MO675. This information is cross-referenced by test unit and analytical category.

Ceramics

A total of 74 sherds and 132 g of sherdlets was recovered in the test excavation units. Types identified include Shell/Grog, Baytown Plain, Mulberry Creek Cord-marked, Eroded Grog, Eroded Limestone, Saltillo Fabric-marked, Alexander Incised, Residual Sand Plain, Eroded Sand, and Eroded Fiber Temper. All diagnostic sherds were recovered from the upper 10 cm to 30 cm. Unit 77S/106W was the only unit that yielded ceramics beneath the plowzone. Several sherdlets and an Eroded Sand Tempered sherd were recovered in Levels 4 and 5, respectively, but were unearthed in root casts or *krotovina* and therefore considered out of context.

Lithics

Projectile Point/Knives: Four diagnostic hafted bifaces were recovered from the test excavation units. These include one Late Woodland/Mississippian Triangular, one Gary, and two Little Bear Creek projectile point/knives (Figure 14.7 e,f,g,h). Four unidentifiable projectile point/knife fragments also were found. All eight items in this category were made from Camden chert, with only one Little Bear Creek projectile point/knife manufactured from the unheated variety. All diagnostic, hafted bifaces were confined to the plow zone.

Cores, Preforms, Bifaces, and Miscellaneous Chipped Stone: One example of each of the following was recovered from the test excavations: a biface, a preform, a uniface end-scraper, a graver, and a denticulate (Figure 14.7 i,j,k). Five unidentifiable chipped stone fragments were also found. With the exception of the Denticulate (Unheated Camden chert), all specimens were made from Heated Camden chert. No items from the core, preform, and biface categories were found below the plowzone. In addition, 12 utilized 0.5-inch flakes (Heated Camden) and 15 utilized 0.25-inch flakes (Unheated Tuscaloosa gravel, Heated Camden, Unheated Camden, Fort Payne, and Pickwick cherts) were recovered in the test units.

Miscellaneous Ground Stone Artifacts: One identifiable ground stone artifact and one ground stone flake were found in the 22MO675 test excavation units.

Non-utilized Debitage: A total of 446 non-utilized flakes was recovered during the testing of 22MO675. Forty-five 0.5-inch flakes and 401 0.25-inch non-utilized flakes were recovered from the test units. A variety of raw materials is represented. Camden cherts account for 93.3% (*n* = 416) of the flakes (Unheated Camden *n* = 38; Heated Camden *n* = 378). The remaining 6.7% (*n* =

30) of the debitage include flakes of Heated and Unheated Tuscaloosa gravel, Blue-green Bangor, Fort Payne, Fossiliferous Fort Payne and Pickwick cherts, Quartzite, Ferruginous Sandstone, and unidentified raw materials.

Introduced Rock: A total of 2.39 kg of introduced rock was recovered from test excavations at 22MO675. Non-utilized cobbles/pebbles account for 56.5% (n = 1.35 kg) of the introduced rock, Fire-cracked Chert/Chunks for 28.5% (n = 681 g), Manganese Nodules for 8.7% (n = 207 g), Ferruginous Sandstone for 4.6% (n = 111 g), and Sandstone for 1.2% (n = 28 g). Petrified Wood (n = 1 g), Hematite (n = 1 g), Limonite (n = 1 g), and Quartz (n = 1 g) together account for the remaining 1% of introduced rock. Of these, Manganese Nodules, Hematite, Limonite, and pebble-sized or smaller specimens of the other raw material types may occur naturally at 22MO675.

Historic Artifacts

Historic material remains were present in two of the six test units. Level 3 (plowzone) in Unit 180S/130W yielded one low brass shotgun shell base and one fragment of slag/cinder. Unit 142S/138W, Level 1 (plowzone) contained one fragment of unidentifiable clear glass.

Test Unit Summary

Diagnostic artifacts recovered from units located in the field at 22MO675 were confined to the plowzone. Cultivation apparently has destroyed the vertical and horizontal integrity of any cultural components in this area of 22MO675.

A slight hint of a Late Woodland concentration appeared in the area between 180S/130W and 180S/140W. The sample size of five sherds is small and provides the barest evidence for this supposition. This area virtually was devoid of tools, debitage, and introduced rock.

Lithic debitage was concentrated in Unit 116S/104W (41.2%; n = 195 and Unit 170S/114W (27.1%; n = 128). Diagnostic artifacts recovered from these units were confined to the plowzone (Levels 1 and 2), and range from Late Archaic to Late Woodland in affiliation. This mixing precludes attributing the lithic debitage to a particular cultural component.

Nondiagnostic tools found during excavation were concentrated in Unit 77S/106W. This northernmost test unit lay in a wooded area that appeared to be the least disturbed by recent land use (Figure 14.2; Table 14.3). A comparison of cultural stratigraphy and debitage counts in Unit 77S/106W and other units, however, failed to demonstrate any significant differences in the stratigraphic distribution of cultural material between test units in plowed and currently unplowed locations. All diagnostics recovered from Unit 77S/106W were confined to the upper 20 to 30 cm except one sherd, which was found in a root cast in Level 5. Level 1 diagnostics include only Middle Woodland/Gulf Formational ceramics. Level 2 contained a Late Woodland/Mississippian Triangular projectile point/knife and ceramics from the Late Woodland, Middle Woodland/Late Gulf Formational, and Late Gulf Formational periods. This indicates that this "protected" wooded section of 22MO675 contains mixed cultural components that cannot be isolated stratigraphically.

RAILROAD EMBANKMENT DISCUSSION

Although the embankment and ditch forming the eastern boundary of the Smilax site (Figure 14.2) were not reported in conjunction with the original survey of 22MO675 (Blakeman 1975), the possibility that the embankment sealed portions of the prehistoric occupation locale instigated a brief historical study of these features. Land and probate records, local histories, cultural resource studies, and county residents were consulted to determine the origin, function, and construction date of these topographic features.

Elliot (1978:87-89) suggests that the series of embankments and cuts that extended approximately three miles northeast of Aberdeen (Aberdeen, Mississippi Quadrangle 1966; USGS 7.5 minute series) are part of a mid-nineteenth century extension of the New Orleans, Jackson and Great Northern Railroad. This inference is based on the alignment of these topographic features with the Mobile and Ohio branch line that lies southwest of Aberdeen. This branch line was constructed on a portion of the right-of-way of the New Orleans, Jackson and Great Northern railroad (Rodabough 1975).

A search of the Monroe County records (Deed Record: 17-54, 19-72, 19-73, and 22-127) revealed that between 1853 and 1861, land purchases in the southwestern and northwestern quarters of Section 10, Township 14S, Range 19W, included a stipulation "reserving the right of the New Orleans, Jackson and Great Northern Railroad to the right of way free of charge . . . as specified in the deed of Wm. H. Saunders" (Deed Record: 22-127). The general area of 22MO675 would have been included in this area as Section 9 was at that time part of the western portion of Section 10.

This information, in conjunction with contemporaneous maps (Colton 1866) and the findings of Monroe County local historian, Grant Gregory, Sr. (personal communication 1981), essentially substantiates Elliot's hypothesis that the old railroad grade extending to the northeast of Aberdeen was a portion of the New Orleans, Jackson and Great Northern Railroad. More specifically, the land records indicate that topographic features forming the eastern boundary of 22MO675 are probably segments of New Orleans, Jackson, and Great Northern Railroad.

DISCUSSION, INTERPRETATION, AND RECOMMENDATIONS

The Smilax site testing program, which included a controlled surface collection, subsurface stratigraphic excavation, and areal stripping, indicates a low density, shallow occupation characterized by few, if any, subsurface features. This same archaeological record prevents any but the broadest inferences concerning the nature of the cultural components represented and the activities which produced them.

All historic artifacts recovered from the Smilax site (Tables 14.2 and 14.3) were found interspersed with prehistoric artifacts in plowzone context. Three of the five artifacts are attributed to the twentieth century. The glass fragment and the slag/cinder fragment could be associated with either nineteenth or twentieth century activities. No patterning was observed in the distribution of historic artifacts found at 22MO675.

Prehistoric occupation ranging from the Late Archaic through the Mississippian periods is suggested by the few ceramic and lithic diagnostic artifacts recovered. The low frequency of artifacts and general absence of features suggest only intermitant, brief periods of occupation, each presumably on the order of a camp. Whether the 22MO675 locale was established and visited to extract resources in the vicinity or developed as an outlier or satellite location for nearby, more heavily utilized sites (e.g. 22MO676 and 22MO677) is difficult to determine because there is so little data. As to specific activities, nothing can be inferred beyond the tasks usually affiliated with ceramic vessels or the production of stone implements (i.e. cooking, storage, and lithic tool manufacture and use). While in some cases low artifact density may be advantageous to analyze and synthesize cultural patterns, the absence of a stratified context or the presence of only a single cultural component negates this possible advantage. No additional work is recommended for the Smilax site (22MO675) because of low artifact density of artifacts, the absence of prehistoric features, and the mixing of cultural components.

As a cautionary note, the above observations and recommendations made above are based on data obtained from the surface collection and test excavation in the area between the postulated railroad embankment on the east and the terrace escarpment on the west (Figure 14.2). Unfortunately, no test units were placed beneath the embankment, which may seal an undisturbed section of the prehistoric occupation locale. The clearing and construction of the nineteenth century railroad grade may have disturbed the underlying prehistoric resources as badly as recent agricultural activities have the "unprotected" portion of the Smilax site. Although testing beneath the embankment should have been implemented, the ephemeral nature of the 22MO675 prehistoric occupation and the undetermined impact of the nineteenth century railroad grade construction reinforce the recommendation that no additional work be performed at 22MO675.

Table 14.1. Site M0675: Material Distribution of Controlled Surface Collection.

Provenience	Historic: Glass: Sun Colored Amethyst	Ceramics: Eroded Grog	Ceramics: Eroded Sand	Ceramics: Sherdlets	Fired Clay (Grams)	Lithics (Number): Preform I-Cobble	Core-Other	Unifacial Side Scraper	Reamer	Unid. Chipped Stone Fragment	.50-Inch Util. Flake-Cam., Unht.	.25-Inch Util. Flake-Cam., Ht.	.50-Inch Nonutil. Flake-Cam., Ht.	.50-Inch Nonutil. Flake-Cam., Unht.	.50-Inch Nonutil. Flake-Pickwick	.50-Inch Nonutil. Flake-Fe Ss	.25-Inch Nonutil. Flake-Tusca., Unht.	.25-Inch Nonutil. Flake-Cam., Ht.	.25-Inch Nonutil. Flake-Cam., Unht.	.25-Inch Nonutil. Flake-Fe Ss	Unmodified (Grams): Chalk	Gravel, Cobbles, Pebbles	Nonutil. F.C. Chert/Chunk	[illegible], Sandstone	[illegible]	[illegible]	[illegible]
[illegible]																		1									
16??, 124W																		1				34	[illegible]	36			
172?, 12?																		2				2?					
13?, 11??																						14	[illegible]				
[illegible]																		2				[illegible]					
1??, 13??				1																							
17?, 144?				1											1							11	[illegible]				
1?38, 14?N	1																	1				1					
16?8, 1??										1																	
[illegible] 44?					1																						
[illegible] 12?																		1	[illegible]			5					
1?8, 124W																		1			1						
1?3, 112?																		2	1			2?				1	
1?8?, 112?																						?3					
1??, 1?8		1																1				?7					
16??, ?4?																		2				16					
148?, 10?W								1					1					1									
1328, 104W					1													4	1			1					
14?, 1?6?																		1									
14??, 11??																	[illegible]	[illegible]				7					
14?, 1?8?						1												4									
[illegible]																						[illegible]					
14?, [illegible]																		1									
1?, 1??																						[illegible]					
1??, 1?8?																						4					
14?, 1??																						11					
1??, 136?					[illegible]								1														
1??, 128?																						[illegible]					
14?, 1???				1									1					1				4					
144?, 1??																		2									
130?, 14?																						1					
144?/1??													2										1				
123?, 104?												1	1					2				1					
120?, 1?8													1		1			2				31					
132?, 120?				1			1											1				14					
?328, 1??W									1													2	3				
1?2?, 112?					1?													2		1		11					
11??, 120?																								3			
11?3, 1?W				1	4									1				3				2?	1?				
[illegible]																											
1048/1?8?					3																						
1?8?, 1?8?					2									1		1		2									
TOTAL	1	2	[illegible]	17	3?	1	1	1	1	1	2	2	3	2	1	1	1	42	1	1	1	25?	76?	[illegible]	4		[illegible]

Table 14.2. Site 22MO675: Feature Data Summary.

Feature	Location	Centerpoint	Dimensions (L, W, D)	Recognition	Type	Affiliation	Cause
1	Transect 1	109.50S/113.50W	330 cm by 170 cm	Plowzone	Soil Stain	Historic	Forest Clearing
2	Transect 2	146.48S/140.38W	36 cm by 40 cm by 38 cm	Base of Plowzone	Soil Stain	Natural	Tree root
3	Transect 3	161.35S/118.10W	30 cm by 30 cm by 63 cm	Base of Plowzone	Soil Stain	Natural	Tree root
4	Transect 3	161.00S/103.00W	[illegible] cm by 28 cm by 60+ cm	Base of Plowzone	Soil Stain	Natural	Tree root
5	Transect 3	161.45S/104.45W	17 cm by 17 cm by [illegible]3 cm	Base of Plowzone	Soil Stain	Natural	Tree root
6	Transect 3	161.10S/105.05W	32 cm by 16 cm by 11 cm	Base of Plowzone	Soil Stain	Natural	Animal Burrow
7	Transect 3	161.67S/114.65W	110 cm by 165 cm by 16 cm	Base of Plowzone	Soil Stain	Natural	Tree root
8	Test Unit 5	116.34S/104.10W	28 cm by 33 cm by 36 cm	Level 2	Soil Stain	Natural	Tree root
9	Test Unit 2	180.20S/131.40W	37 cm by 54 cm by 16 cm	Level 3	Soil Stain	Natural	Tree root
10	Test Unit 6	78.70S/107.54W	16 cm by 12 cm by 10 cm	Level 3	Soil Stain	Natural	Tree root
11	Test Unit 1	171.00S/114.50W	29 cm by 39 cm by 24 cm	Level 4	Soil Stain	Natural	Tree root
12	Test Unit 1	170.99S/115.57W	31 cm by 55 cm by 22 cm	Level 4	Soil Stain	Natural	Tree root
13	Test Unit 6	78.60S/106.15W	17 cm by 20 cm by 14 cm	Level 7	Soil Stain	Natural	Tree root

Table 14.3. Site 22MO675: Distribution of Material in Test Units by Level.

Ceramics

PROVENIENCE	Shell-Grog (Number)	Baytown Plain (Number)	Mulberry Creek Cord Marked (Number)	Eroded Grog (Number)	Eroded Limestone (Number)	Saltillo Fabric Marked (Number)	Alexander Incised (Number)	Residual Sand Plain (Number)	Eroded Sand (Number)	Eroded Fiber (Number)	Sherdlets (Grams)	Fired Clay (Grams)
170S/114W												
L-1												2
L-2											4	3
L-3									2		5	4
L-4										1		
180S/130W												
L-1											4	9
L-2	1	2									8	3
L-3												
162S/138W												
L-1				4					2		3	5
L-2												
158S/120W												
L-1		1							2		15	1
L-2										8	17	2
L-3												
L-4												1
L-5												
L-6												1
116S/104W												
L-1		4	1	2	1					23	55	165
L-2												
77S/106W												
L-1							4		2		10	4
L-2				1		3	2	1	6		8	5
L-3												5
L-4											3	
L-5									1			
L-6												
TOTALS	1	7	1	7	1	3	6	1	46	1	132	213

Lithics (Number)

PROVENIENCE	Gary-Cam., Ht.	Lt. Wt./Ms. Triangular-Cam., Ht.	Little Bear Creek-Cam., Ht.	Little Bear Creek-Cam., Unht.	Unid. PP/K Distal Frag.-Cam., Ht.	Unid. PP/K Medial Frag.-Cam., Ht.	Unid. PP/K Proximal Frag.-Cam., Ht.	Biface Blade Proximal Frag.-Cam., Ht.	Preform I-Indeterminate-Cam., Ht.	Unif. End Scraper-Other Flake-Cam., Ht.	Graver-Cam., Ht.	Denticulate-Cam., Unht.	Unid. Chipped Stone Frag.-Cam., Ht.	.50-Inch Util. Flake-Cam., Ht.	.25-Inch Util. Flake-Tusca., Unht.	.25-Inch Util. Flake-Cam., Ht.	.25-Inch Util. Flake-Cam., Unht.	.25-Inch Util. Flake-Ft. Payne	.25-Inch Util. Flake-Pickwick
170S/114W																			
L-1																			
L-2			1																
L-3					1		1	1						2		1			
L-4																			
180S/130W																			
L-1																			
L-2																			
L-3																			
162S/138W																			
L-1														1		1			
L-2																			
158S/120W																			
L-1																			
L-2														2	1	1			
L-3																			
L-4																			
L-5																			
L-6																			
116S/104W																			
L-1																			
L-2	1			1	1							1		3	1	4	1		1
77S/106W																			
L-1						1			1	1	1			3		2			
L-2		1											5			2		1	
L-3																			
L-4																			
L-5														1					
L-6																			
TOTALS	2	1	1	1	2	1	1	1	1	1	1	1	5	12	1	11	1	1	1

Lithics (Number), continued

PROVENIENCE	Unid. Ground/Polished Stone Frag.-Fe Ss	Other (Ground Flake)-Fe Ss	.50-Inch Nonutil. Flake-Cam., Ht.	.50-Inch Nonutil. Flake-Cam., Unht.	.50-Inch Nonutil. Flake-Fe Ss	.25-Inch Nonutil. Flake-Tusca., Ht.	.25-Inch Nonutil. Flake-Tusca., Unht.	.25-Inch Nonutil. Flake-Cam., Ht.	.25-Inch Nonutil. Flake-Cam., Unht.	.25-Inch Nonutil. Flake-Bangor, Bl./Gr.	.25-Inch Nonutil. Flake-Ft. Payne	.25-Inch Nonutil. Flake-Ft. Payne, Fossil.	.25-Inch Nonutil. Flake-Quartz	.25-Inch Nonutil. Flake-Pickwick	.25-Inch Nonutil. Flake-Fe Ss	.25-Inch Nonutil. Flake-Unidentified
170S/114W																
L-1								4	1							
L-2			1	2				49	3							
L-3			5	1				48	2							
L-4			1					8								
180S/130W																
L-1																
L-2								1	2							
L-3								2								
162S/138W																
L-1								9	2							
L-2																
158S/120W																
L-1			1					26	2							
L-2			1					25	4							
L-3								5								
L-4																
L-5								2								
L-6																
116S/104W																
L-1									1				1			
L-2	1	1	26	2				124	12	5	2	3		2	1	6
77S/106W																
L-1	1						2	9			2				2	
L-2			3		1			27	4		1					1
L-3			1													
L-4																
L-5																
L-6																
TOTALS	2	1	39	5	1	1	3	339	33	5	5	3	1	2	3	7

Introduced Rock (Grams) and Historic (Number)

PROVENIENCE	Unmod. Cobbles/Pebbles	Nonutil. F.C. Chert/Chunk	Ferruginous Sandstone	Sandstone	Petrified Wood	Hematite	Limonite	Quartzite	Manganese Nodules	Glass, Clear (Unid. Fragment)	Slag/Cinder Fragment	Shotgun Shell (Low Brass)
170S/114W												
L-1	9	13	1									
L-2	122	112	21		1							
L-3	52	40	3						4			
L-4	6	3										
180S/130W												
L-1												
L-2	25	6	2									
L-3	17	1	3	3					1		1	1
162S/138W												
L-1	99	9	2						1	1		
L-2	2								1			
158S/120W												
L-1	112	13		3				1				
L-2	120	26	7	2					2			
L-3	1		2									
L-4	8											
L-5	2											
L-6	1											
116S/104W												
L-1	17											
L-2	564	369	66	9					28			
77S/106W												
L-1	71	36	2	11		1			52			
L-2	103	37	2						43			
L-3	6	13					1		26			
L-4	7											
L-5	16	3							1			
L-6												
TOTALS	1354	681	111	28	1	1	1	1	207	1	1	1

Figure 14.1

Site 22MO675: Waterway location map

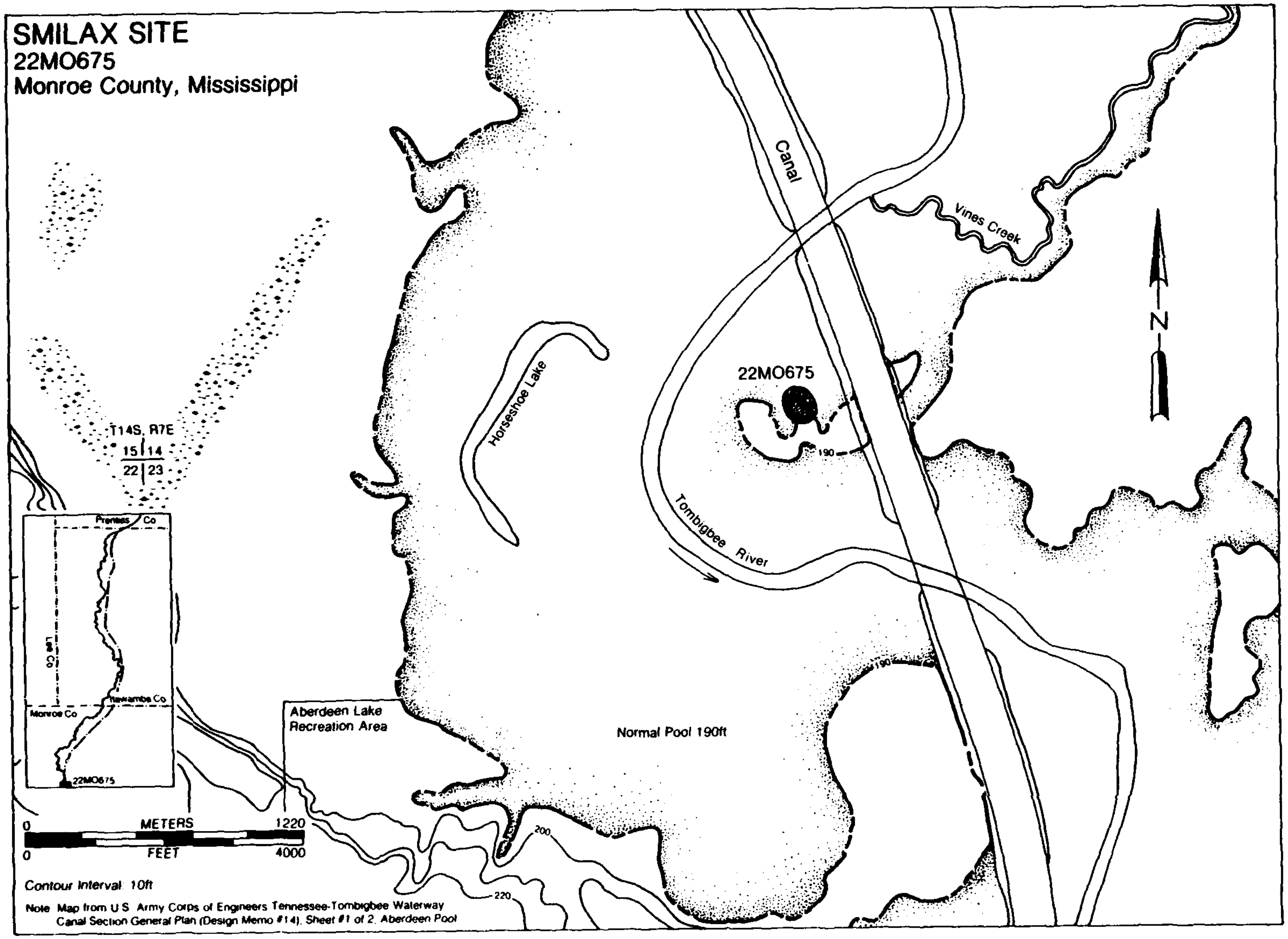
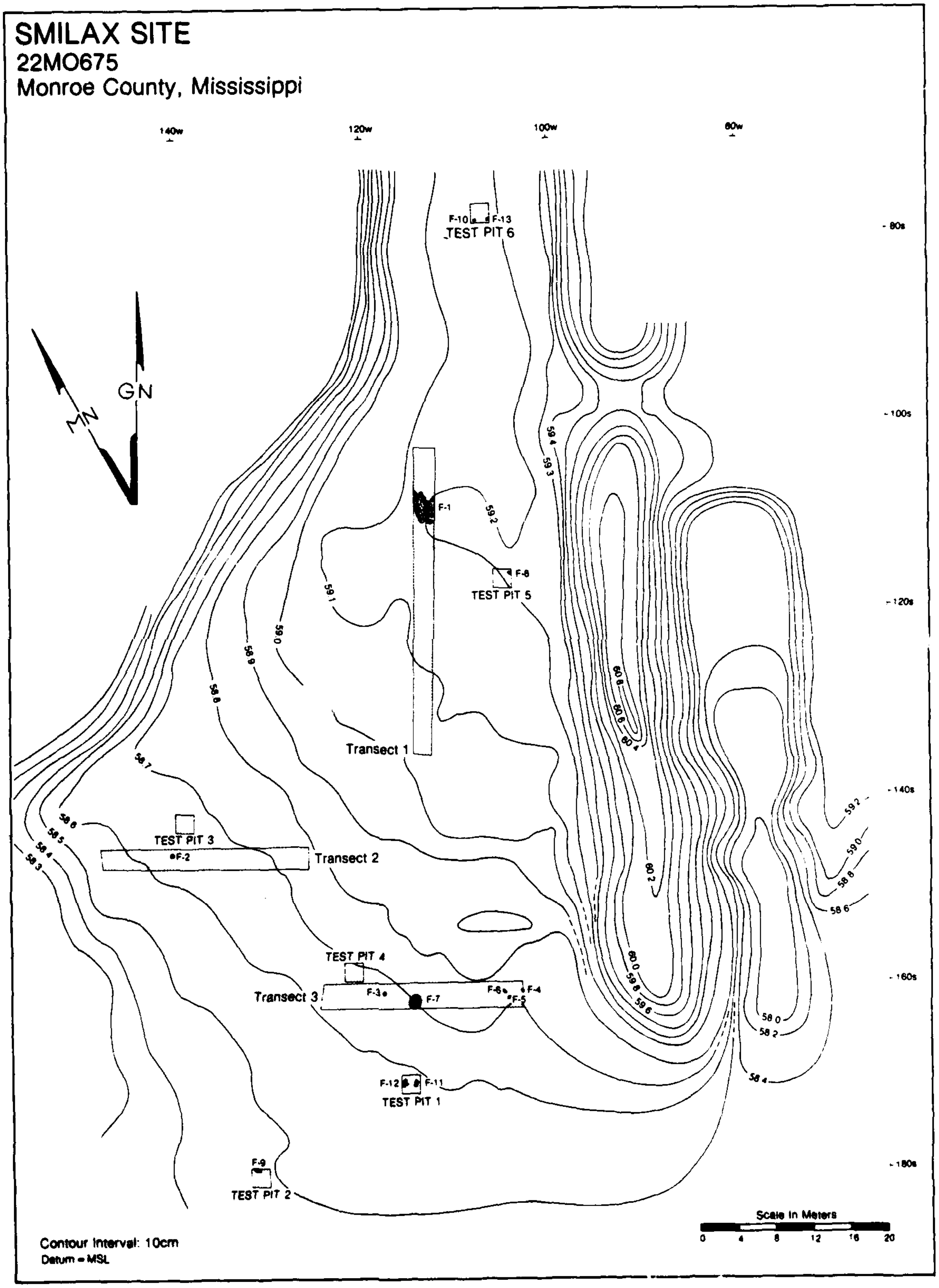

SMILAX SITE
22MO675
Monroe County, Mississippi
T14S, R7E
15 | 14
22 | 23
Prentiss Co
Lee Co
Itawamba Co
Monroe Co
22MO675
Canal
Vines Creek
N
22MO675
190
Horseshoe Lake
Tombigbee River
190
Normal Pool 190ft
Aberdeen Lake
Recreation Area
200
220
0 METERS 1220
0 FEET 4000
Contour Interval 10ft
Note Map from U S Army Corps of Engineers Tennessee-Tombigbee Waterway
Canal Section General Plan (Design Memo #14), Sheet #1 of 2, Aberdeen Pool

Figure 14.2

Site 22MO675: Topographic map and excavation plan

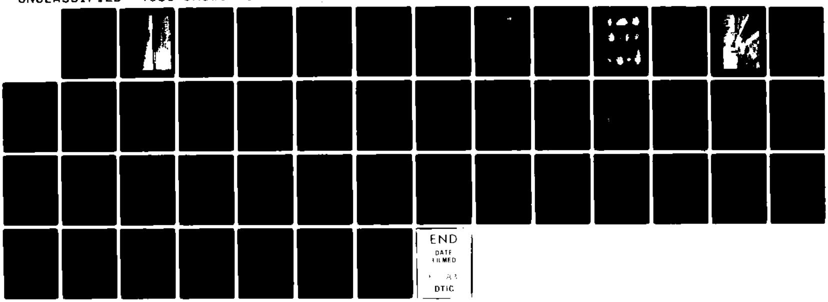

SMILAX SITE
22MO675
Monroe County, Mississippi
140w
120w
100w
80w
80s
100s
120s
140s
160s
180s
GN
MN
F-10
F-13
TEST PIT 6
F-1
F-8
TEST PIT 5
Transect 1
TEST PIT 3
F-2
Transect 2
TEST PIT 4
Transect 3
F-3
F-7
F-6
F-4
F-5
F-12
F-11
TEST PIT 1
F-9
TEST PIT 2
Contour Interval: 10cm
Datum = MSL
Scale in Meters
0 4 8 12 16 20

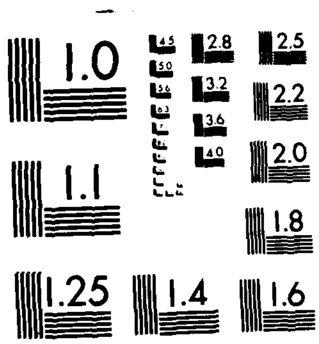
14.17

Figure 14.3

Site 22MO675: General view of the site looking north

AD-A126 692 ARCHAEOLOGICAL INVESTIGATIONS IN THE UPPER TOMBIGBEE 4/4
VALLEY MISSISSIPPI:..(U) UNIVERSITY OF WEST FLORIDA
PENSACOLA OFFICE OF CULTURAL AND A.. J A BENSE ET AL.
UNCLASSIFIED 1983 DACW01-80-C-0063 F/G 5/6 NL





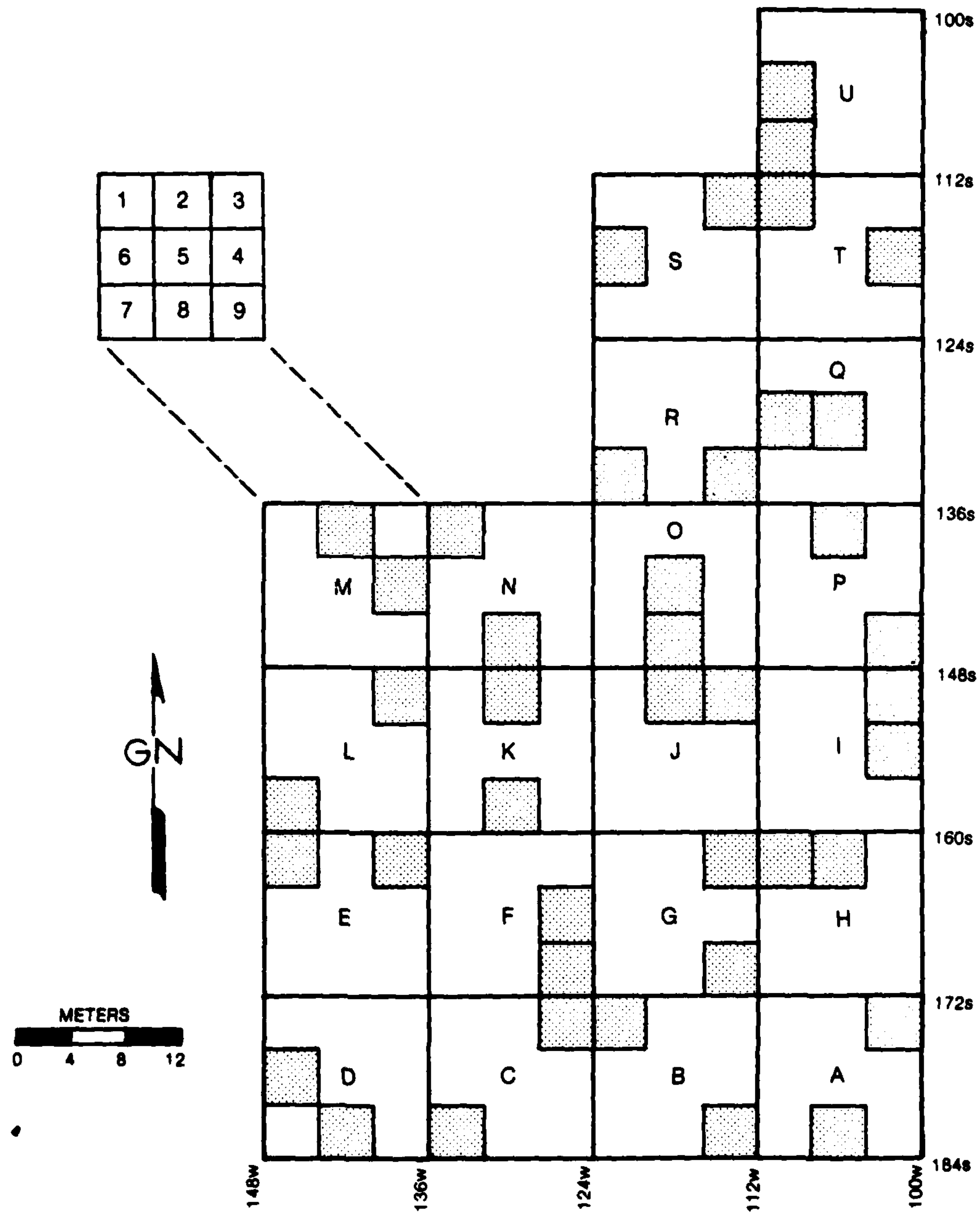
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

14.19

Figure 14.4

Site 22MO675: Surface collection plan

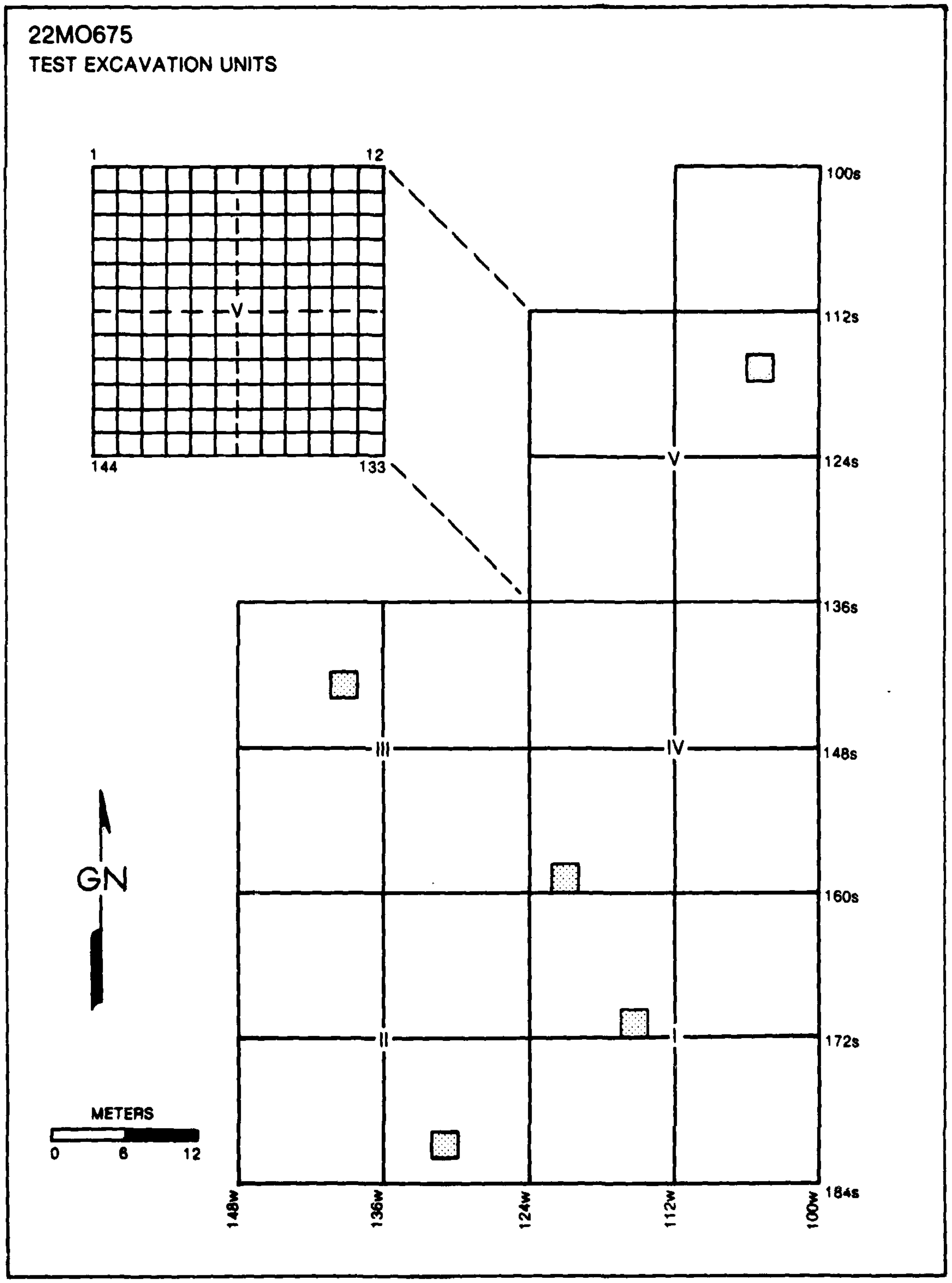
22MO675
SURFACE COLLECTION UNITS



1421

Figure 14.5

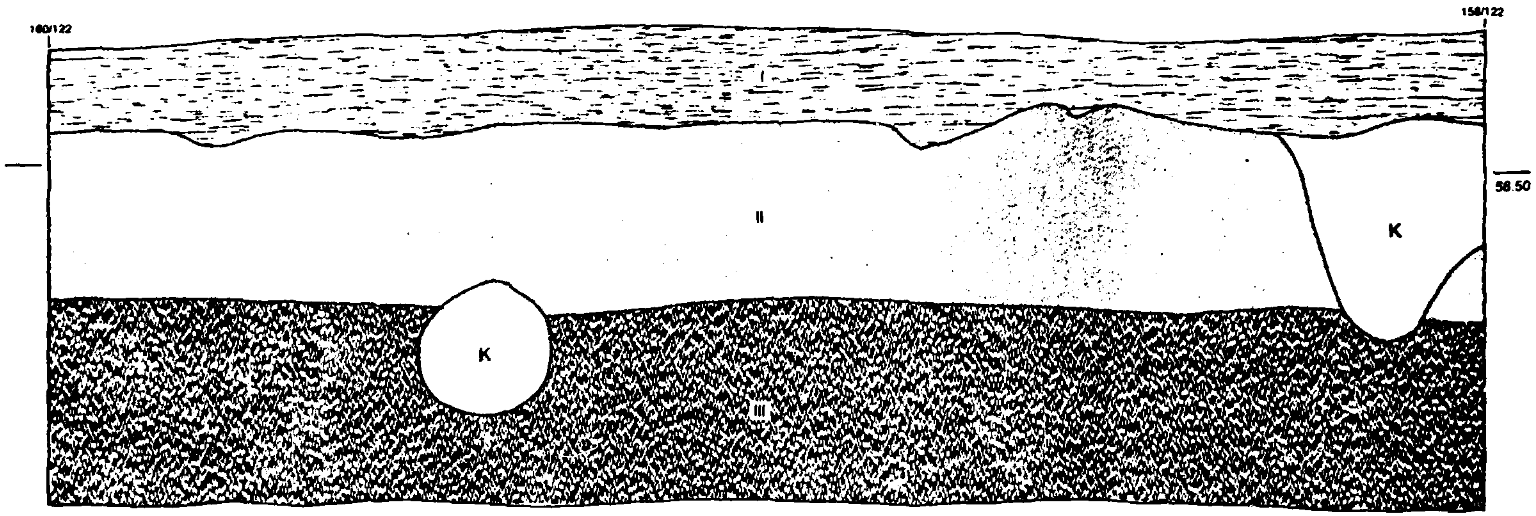
Site 22MO675: Test unit plan


22MO675
TEST EXCAVATION UNITS
1
12
144
133
V
100s
112s
124s
136s
148s
160s
172s
184s
III
IV
II
I
GN
METERS
0
6
12
148w
136w
124w
112w
100w

14-23

Figure 14.6

Site 22MO675: Stratigraphic profile: Unit 77S/106W



22MO675

TEST PIT 4 (158s/120w)
West Wall

I. Plowzone, grayish brown (10YR 5/2) silt loam mottled with *yellowish brown (10YR 5/6) silt loam.*
II. Yellowish brown (10YR 5/6) silty clay loam.
III. Yellowish brown (10YR 5/8) silty clay loam.

cm
0 40

K Krotovina

1425

Figure 14.7

Site 22MO675: Selected lithic artifacts

a. Flint Creek Projectile Point/Knife
b. Core Other
c. Preform I
d. Reamer
e. Late Woodland/Mississippian Small Triangular Projectile Point/Knife
f. Gary Projectile Point/Knife
g - h. Little Bear Creek Projectile Point/Knife
i. Preform I
j. Graver
k. Denticulate on Little Bear Creek Projectile Point/Knife

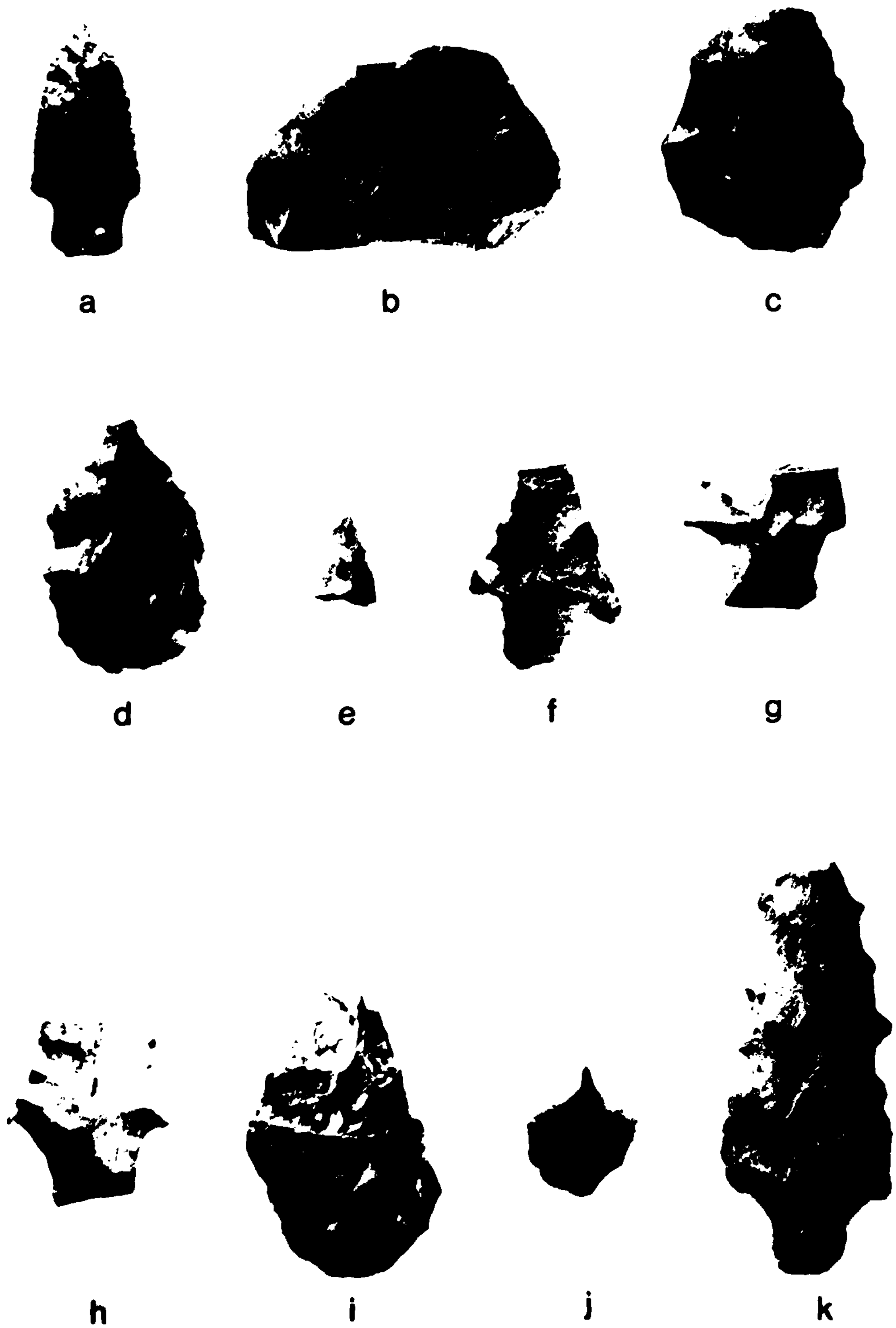
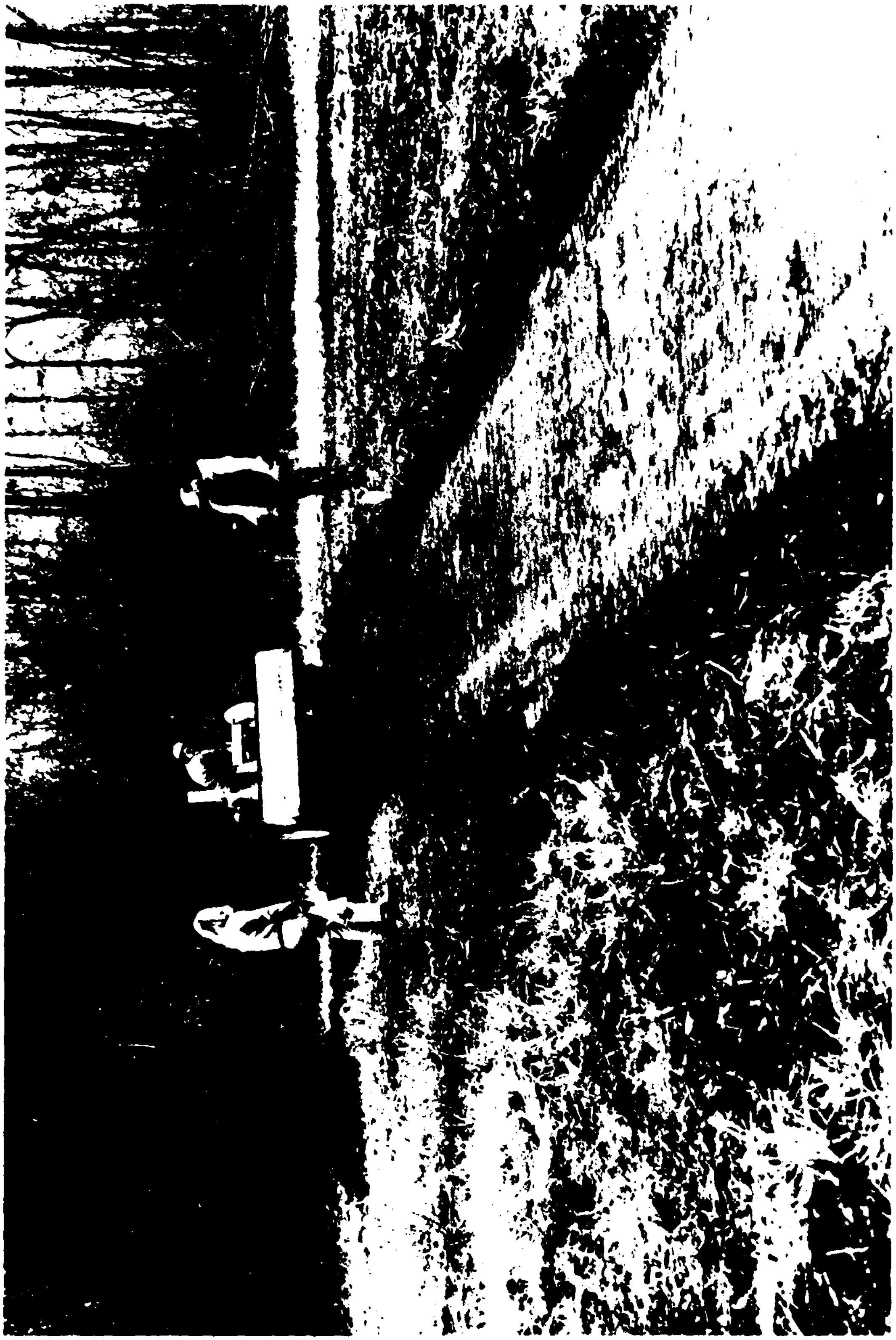

a
b
c
d
e
f
g
h
i
j
k

Figure 14.8

Site 22MO675: Stripping of Transect One



CHAPTER 15

SUMMARY AND EVALUATION

INTRODUCTION

This document is a report of the archaeological investigations conducted in the Tennessee-Tombigbee Waterway in northeast Mississippi by the University of West Florida between January 1980 through March 1981. This work was performed under contract with the U.S. Army Corps of Engineers, Mobile District (DACW01-80-0063). This report is a description of the work performed, the data recovered, and initial summaries and evaluations of that data. This chapter will address the latter two objectives of this report.

In each of the four chapters which are major site reports (5-8), a site specific summary and evaluation has been made and these will not be repeated here. This section will deal with summarizing the project as a whole and the nature of the different data sets within the entire data base. Research questions and directions will be formulated that appear to warrant further investigation from both this project and the Tennessee-Tombigbee Waterway perspectives.

SUMMARY OF THE PROJECT

The project reported on here developed out of the mitigation plan for the waterway. The project was designed around the Archaic (and possibly Paleo-Indian) and Gulf Formational Stages in the Upper Tombigbee Valley. Investigations in the waterway prior to 1980 had encountered little concerning these occupations and this increased the potential contribution of this project. Testing of many of these and other sites in the Upper Tombigbee Valley indicated that intact deposits of the above stages were present in these sites in the floodplain of the upper reaches of the Tombigbee River (Bense 1979a, b, c, 1982). This project was developed, therefore, along a basically cultural historical theme. The anthropological approach of cultural ecology was used as a theoretical framework for the research.

The original Scope of Work called for data recovery investigations at six sites and evaluatory investigations were to be conducted at three additional sites. This was later modified to data recovery at four sites (22IT539, 22IT563, 22IT576, 22IT590) and evaluatory investigations at seven sites (22IT606, 22IT621, 22IT622, 22IT623, 22IT624, 22MO531, 22MO675).

The field investigatons were conducted between January 1980 and March 1981. Laboratory work extended through May of 1981 and report preparation extended until September 1982. Waterway construction schedules were such that at least two sites were under investigation at any one time, and often three or four were in various stages of fieldwork. Laboratory and fieldwork were conducted simultaneously as was data processing.

The anthropological perspective provided the primary theoretical orientation for our research. This perspective allowed us to evaluate the nature of the aboriginal cultural traditions as they were expressed in the Upper Tombigbee Valley and enabled us to place the archaeological interpretations in a cultural context, thus permitting cross-cultural comparisions to be made with hunting and gathering cultures around the world. Thus, ethnographic analogy contributed a set of behavioral correlates tht aided in the interpetation of archaeologically recovered artifacts and ecofacts, with their patterning and association with geomorphical data.

This project's research design, presented in detail in Supplement I, grew out of our attempt to understand and explain the economic orientaton of the prehistoric Upper Tombigbee Valley inhabitants. An implicit assumption here is that during much of this area's culture history the occupants practiced a basic and primary subsistence and settlement pattern that centered upon a hunting and gathering adaptation. In order to outline the broad scope of this economic adjustment to the Upper Tombigbee Valley, we decided to use an explicitly anthropological perspective with emphasis on ethnographic analogy. Thus, ethnographic models were used to provide behavioral correlates of archaeologically recovered material culture and its patterning. The primary source for the ethnographic information was an economic model (Dye 1980) based on ethnohistoric accounts of the Chickasaw, Choctaw, Creek, and Yuchi Indians. This material was used for ethnographic parallels in an effort to determine the nature of the various activities represented at the archaeological sites, to recover evidence of patterning within and between sites, to reveal the processes of site formation and to determine the temporal limits of each site's occupancy. The testing information from these sites (Bense 1979a, b, c;1982) was used to generate an expected archaeological record.

In order to carry out these research objectives, the personnel, methods, and techniques were articulted so that we would recover data in an efficient manner. The project's personnel were organized into teams; each of which was structured around team leaders and team leaders were supervised on a day to day basis by the assistant field and laboratory directors. The field and laboratory directors, co-ordinated by the principal investigator, organized and carried out the research approach. Administrative support and guidance came from the University of West Florida and was coordinated by the office director. Outside consultants evaluated and monitered the recovery and analysis procedures and performed specialized analyses.

The excavation and laboratory techniques enabled the examination the nature of the cultural (artifacts, features, etc.) and environmental (ecofacts, pollen, etc.) remains in a systematic and scientific manner. In addition, depositional data (geomorphology, pedology, etc.) were evaluated for information on paleoenvironments, site use and development. These data sets, forming the basis for interpreting the behavioral patterns of the Upper Tombigbee Valley aboriginal inhabitants, were tabulated through a field headquarters computer system. The project strategy then was geared to recover detailed information on the prehistoric Upper Tombigbee Valley folk through data recovery (field techniques), analysis (laboratory techniques), and management (computer techniques).

The field strategy was based on a standarized, but flexible, set of procedures. The measurement system was metric, and the basic horizontal unit of measure was the 2 m x 2 m unit, while the basic vertical unit of measure was the 10 cm level. Ten centimeter levels were not used when natural stratigraphy was observed, or where more discrete excavation levels were warranted. Large excavation units or blocks were placed in areas that might provide data on activity areas. In particular, we hoped to investigate living floors as discrete units and their associated artifacts, ecofacts, and features. Large excavation units also provided a broad view of site formation and the extent of site disturbance. Such units generally were placed toward the center of sites, because previous work indicated that the edges of sites often are disturbed and thinly distributed. The site's soils were analyzed both chemically and visually prior to further excavation. Chemical cores were taken to measure the distribution of activity areas and their intensity and duration. Visual cores were taken to investigate features, such as fired clay and charcoal, that might be associated with cultural activities at the sites.

Most of the material from each excavation unit (2 m x 2 m) was processed through 0.25 inch hardware cloth. The remaining soil, artifacts, ecofacts, and features were treated as special samples: archaeomagnetic, C-14, sediment, plotted specimens. A 1 m x 1 m control block was delineated for the removal of fine screen (0.06 inch), macrobotanical (flotation), perpetuity, pollen, biosilicate, and lipid samples. To supplement the limited stratigraphic view afforded in the excavation units, backhoe trenches were excavated on the major sites, and limited areas were exposed by heavy equipment.

The laboratory analysis, as an integrated aid for excavation strategy, was designed to process the recovered information and to organize and analyze the collection. Mass debitage analysis was used for quick retrieval of information for field decisions. The ceramics from all sites were screened through 0.5 inch mesh hardware cloth, sorted by type, and counted and weighed. The lithic artifacts were analyzed with an aim toward determining the manufacture or reduction sequence. Such categories were cross-cut by raw material grouping to determine the aboriginal lithic preference through time and space. The lithic analysis consisted of size grading the flaking debris into several categories, thus stratifying the lithic sample. Additional categories included various types of unmodified rock, fired clay, fire-cracked rock, ground stone tools, chipped stone tools, biotic remains, and other materials.

The computer system enabled us to control, store, and retrieve the cultural information recovered through excavation and laboratory analysis. This analytical tool was important in designing the field and laboratory procedues and in the preparation of the final report.

The use of a problem-oriented research strategy enabled us to elicit data that was pertinent to the prehistoric Upper Tombigbee Valley inhabitant's cultural and biological adaptation. The data recovery, analysis, and management techniques played critical roles in the interpretation and explanation of the cultural patterns that existed throughout the prehistory of this region. Thus, the project's integrated scope and orientation provided relevant data for answering the questions

EVALUATION

Research Design

The research design (Supplement I) utilized during this project was formulated in 1979 by the senior staff. Phase I investigations immediately put it into practice, as this was the primary data recovery stage of the project. As with all carefully laid plans, some ideas worked very well, some were less successful, and most were on the right track. Inherent in the relevance and utility of archaeological research designs is, of course, the nature of the actual deposits encountered.

The research design for the project had three levels of investigation: 1) cultural chronology of the Archaic throgh Gulf Formational Stages, 2) subsistence lifeways of these past occupations of the Upper Tombigbee Valley, and 3) the iaentification of research questions which could be addressed to the recorded data sets. The methods and techniques proposed to extract, process, and manipulate the data also had three parts: field methods, laboratory methods, and data management procedures.

The keys to applying the research design of this project was flexibility and feedback. Determined efforts were made to maintain consistency throughout the project. When changes were made, they had to be project-wide or the information would not be comparable.

The project design had as its central theme the investigaton of several similar sites (multicomponent on the floodplain), with intact deposits, of the same stages (Archaic through Gulf Formational), in the Upper Tombigbee Valley. With the large number of sites and length of time spent in the field, analysis, and report preparation, it was hoped that the project staff would gain insight and expertise with the subtleties of the cultural record.

After almost three years since the project's inception at this writing, it can be said without reservation that the same staff/similar sites design was very successful. Contract archaeology usually consists of a series of short-term projects between which there is little continuity in research design, field methods, analytical systems, or data management. However, with the advantage of the long term project and the opportunity to adapt proposed ideas to the reality of the archaeological record, this project was able to develop into a research team. The entire staff, from crew members to principal investigator, became familiar with the material and efficiency increased swiftly. The senior staff were able to make decisions from a high level of information which efficiently produced quality data.

The advantage of the large data base provided insight into patterns between and within sites. This would not have occurred had the project been broken up into several smaller parts, each under separate management.

The methods and techniques used in the project were flexible, yet out of necessity remained as consistent as possible. The field methods were the least modified from the original design and worked very well. The laboratory processing was refined as presented in the Laboratory Manual (Appendix V). The lithic analytical system utilized in Phase I did present some problems, as noted in Chapter 4 and Appendix III. However, lithic classification is a problem in the southeast and no consistent, uniform and rapid system had evolved in 1979. Of all aspects of the project, the classification had to remain comparable throughout. Hundreds of thousands of artifacts pouring in from several sites from the first day of fieldwork did not allow for much deviation from the original classification system. The purposes the analytical system was designed to provide were quick feedback for decision making in forms of historical and technological information and to provide a reliable data base for formulating future research.

Both objectives were reached and the future possibilities of the data base will be discussed later in this chapter.

The data management system underwent the most revision on the project. As described in Chapter 4, the original stand-alone micro-computer system was inadequate for the project's data processing requirements. The system was re-organized and designed around the large state computing facility center (NERDC). The problems and resulting successful changes in the data management system caused a large backlog of input and output. The original strategy of the project was designed around rapid turn around of information from the field. To adjust to the lack of computer-generated information, hand tallied distributions were made by the laboratory staff of temporally sensitive artifact types as well as the range of other cultural material. This system worked quite well and smoothly. Although the data management system was corrected, the volume of material and requests was such that it was unable to keep up with the current demands. This forced time delays in report preparation due to programming, debugging, and revision for the production of the hundreds of data summaries necessary to authors of technical site reports. However, with the completion of field work, these problems eased and the necessary output was produced.

The research design project strategy and methods used in this project were a combination of the traditional and the new. This approach was useable and productive as this report has detailed in the previous 14 chapters. Refinements were made during the project as well as in hindsight after Phase I. These refinements were applied in Phase II. The results of the second application of this research design were even better and more efficiently produced

Data

Evaluation of the data produced during Phase I is based on the level of information which can be currently extracted and its significance. It should be realized that the numerous research questions can be addressed to this large data base, and further work will raise additional ones. However, within the recovered material, there are basic inherent factors which will influence the level of the questions which can be asked. Among these factors are the degree of integrity, the preservation of organic remains, and the range of cultural material.

It should also be realized that of the seven sites tested in Phase I, four were recommended for further work. The recommendations were made with respect to the data recovered at the four sites excavated in Phase I so that both complimentary and crosschecking information could be retreived. This strategy was designed to provide a firm chronological base from all cultural expressions in the Upper Tombigbee Valley so that lifeway and processual level studies could be feasible. The recommended work at 22IT606, 22IT621, 22IT623, and 22IT624 was approved, has been completed, and was successful. The results of these investigations are presented in the Phase II descriptive report (Bense, Lee, and White 1982).

The evaluation of the data produced in Phase I cannot be done in isolation from Phase II, however, it will be of primary concern. For the most part, Phase II was concerened with different components than Phase I.

Evaluation will necessarily cross-cut site components and the material of which they are composed. Chronologically, most recognized cultures were encountered in these investigations (Figure 15.1). The most important variable was the nature of each component encountered at each site. The quality of each component is also presented in Figure 15.1. It can be seen that with few exceptions (Wheeler and Miller I and II), intact deposits of each cultural period is represented in the sample obtained. Dating the components was possible only to the initial Late Archaic Benton culture (6000 B.P.). Unfortunately no firm Middle or Early Archaic dates were obtained. Neither is it possible to obtain dates with the recovered materials from Phase I of these cultures.

With the data obtained from this and other projects in the Upper Tombigbee Valley, it appears that the basic chronological sequence has been established. Of course refinements will and should be made in the future from new research.

The evaluation process has isolated out several data sets which can produce much needed and seldom recovered information to our understanding of culture. There are also parts of the data which have been described to the limit of their potential and warrant no further work.

The most valuable aspects of the data recovered in these investigations are the collections from the Archaic Stage components. The size of the data set plus the large area excavated at each site has produced a sample to which analytical, lifeway, and processual questions can be effectively addressed.

As has been stated repeatedly in the body of this report and the consultant reviews, one of the weakest parts of archaeological endeavors is lithic analysis. It was realized from the outset that more detailed analysis would be needed after the preliminary descriptions were completed. The recovery of Early, Middle, and initial Late Archaic deposits in good stratigraphic context has provided a situation in which both high level analytical procedures can be effectively utilized and have the information used to build detailed models of lifeways between 5 and 10,000 years ago. The analysis which would be most effective is that defined and used by Ahler (Appendix III:3, this report; also Ahler 1979). This system would examine the lithic material in terms of function, technology, style and use phase.

The resulting information, combined with the measurement data already recorded in Phase I, will be conducive to a series of research questions which seldom can be asked of any data set in eastern North America. These questions can include at least the following areas of investigation:

1. Technology in both a synchronic and diachronic perspective.

2. The thorny problem of projectile point/knives typology can be also addressed. This is in great demand for the mid-South and will be a valuable contribution. Statistical analysis of the measurement data should identify groups of projectile point/knife types which can be scientifically replicated and measured. The overlap in current type definitions is simply intolerable. The long stratigraphic record encountered in both phases of this project offers a real opportunity to the analytical quagmire of point types in Alabama and Mississippi.

3. The evaluation of styles or morphological shape through time in many tool forms which well may isolate useful new temporal markers (e.g., drills, scrapers) which are recovered more frequently than projectile point/knives.

4. Specific activities conducted at and between contemporaneous sites can be examined at a high level of detail.

5. Comparison on at least three levels (form, function, and technology) of obviously different cultural systems (Poplar and Walnut Phases).

In addition to the analytical and lifeway level information potential that the intensive analysis will provide, processual questions can be reached. These include the formation of the archaeological record and adaptations to the changing early postglacial environment.

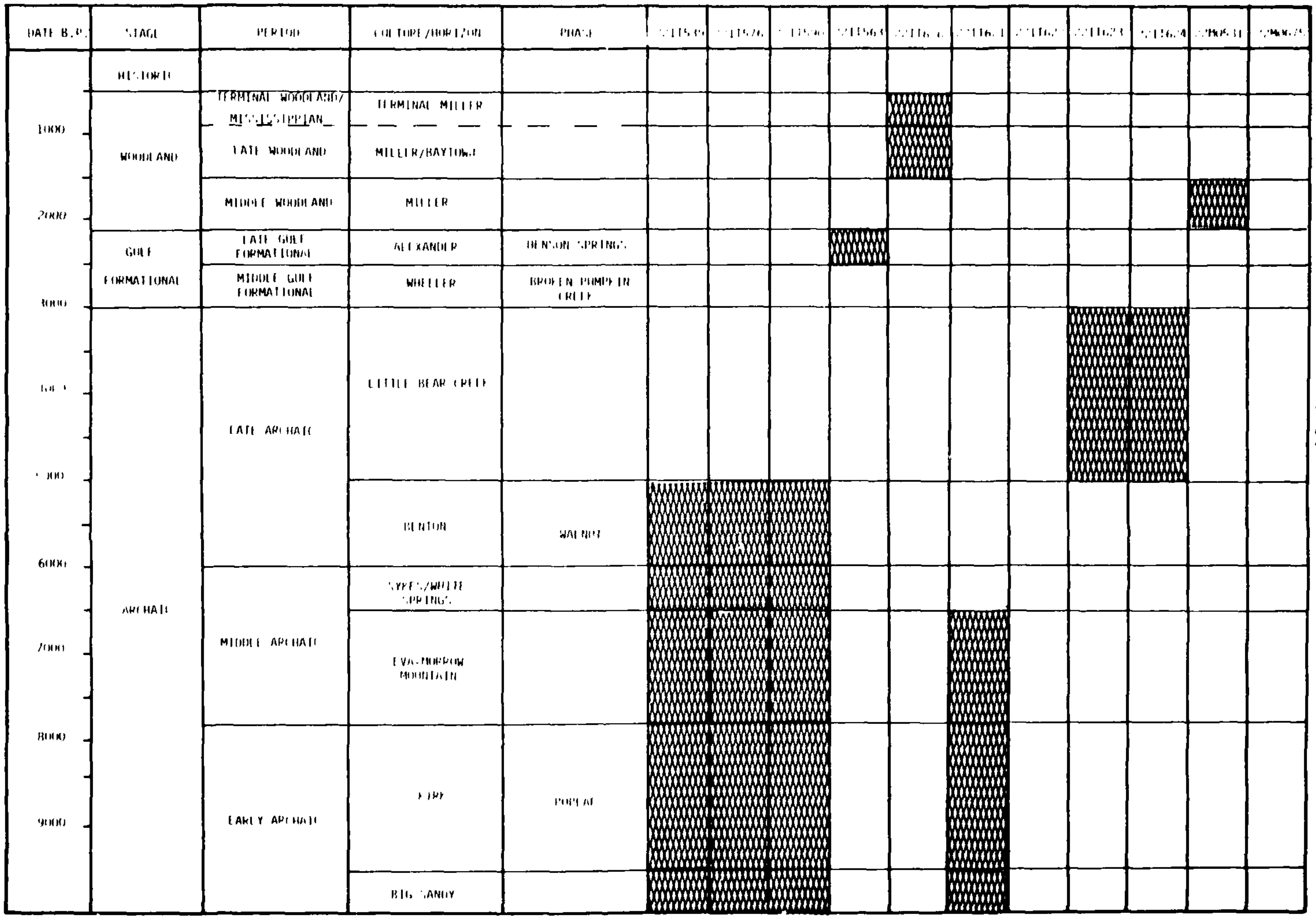
Recent studies by Hoffman (1982) and Villas (1982) have utilized the refitting technique to identify true zones of occupation, the formation of the archaeological record, and to assess the degree of actual integrity from which to construct archaeological assemblages which are reflective of the past reality. This procedure could readily be conducted on the specimens undergoing the above described intensive analysis. This information would provide added and needed credibility to the models of Archaic culture which will result.

The area of cultural adaptation and adjustments to post glacial conditions can be approached through the data generated from this project, but will also require the compilation of data from outside the area. Recent research is demonstrating that the nature of post-glacial climate in the mid-South and indeed many other areas does not follow the conventional model of a hot and possibly dry period (Altithermal) between ca. 6 and 7000 B.P. (H. Delcourt and Delcourt 1982). In fact, the maximum warm/dry conditions in the mid-South appears to have been between 10,000 and 8400 B.P. After 8400 B.P. essentially modern regimes were established. Evidence from this project also points in that direction. This is consistent with the well-developed paleosol which consistently contains Early Archaic cultural material. The soil science consultant for the project, Pettry, has stated that extended warm/dry conditions could be likely because of this development (this report; also Pettry and Bense 1982). Additional evidence of much cooler than previously expected early post-glacial conditions (14-10,000 B.P.) in the mid-South is being discovered. Boreal pollen recovered from 22IT590 associated with Dalton-Kirk-Greenbrier projectile point/knives appears to support this refined model. The compilation of paleo-environmental data and generation of climatic models will be necessary to approach this question. These models will be used to better identify changes in adaptation as reflected in material remains. The distribution of cultural material such as biotic remains, features, and their organization will also be utilized. In addition, information from nearby areas with contemporaneous occupations should be included. These areas include the Duck River Valley in Tennessee and the Little Bear Creek watershed in Alabama.

It is unfortunate that the stratigraphic context of the post-Benton was usually destroyed. Exceptions to this are 22IT606 (Late Woodland/Mississippian), 22IT563 (Late Gulf Formational Henson Springs Phase), and 22MO531 (Middle Woodland). As seen in Figure 15.1 and throughout this report, post-Benton components were usually encountered and tens of thousands of artifacts were recovered from them. However, the mixing was such that isolation of contemporaneous material was impossible. Therefore, the descriptive level of analysis presented in this report provides the highest level of useful information which is warranted Intensive analysis of the lithics associated with these materials is not justified, as the association with an identifiable component cannot be made. Phase II investigations retrieved an excellent sample of Late Woodland/Mississippian and terminal Late Archaic components, and this will provide much needed information on these occupations.

Figure 15.1

Cultural chronology of the Upper Tombigbee Valley
and evaluation of site components



Intact component suitable for further analysis

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